

ILLEGAL USE OF POISONED-BAITS. LEGAL ANALYSIS AND INVESTIGATION



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Any comment on this study is welcome. Please send it to veneno@seo.org

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Foreword

I feel honoured to be asked to write the foreword to this work that has been drawn up by so many different authors and which aims to serve as a guideline and roadmap for all stakeholders in the fight against the illegal use of poison. It gives me the chance to add my voice to theirs and stress the importance of this matter not only for those of us who are involved professionally in investigations against this nefarious practice but also for the public at large, bringing home to them the direct influence of poison use on flora and fauna, jeopardising our constitutional right to enjoy the environment as laid down in article 45 of the Spanish Constitution.

I fully concur with its call for common lines of action in the fight against this scourge, which is still fairly widespread today in some groups active in our countryside. I likewise agree with the idea that we all need to pull together with maximum collaboration and liaison among all stakeholders in this struggle, with the final remit of safeguarding the environment as a common good. The text therefore aims to bring them all together, also bringing different views of the same problem to the table, delving deeper into some aspects from a historical, technical, practical, biological and legal point of view without ever ruling out any other fruitful viewpoints on poison use and how to deal with it.

It strikes me as counterintuitive that the painstaking regulation on this matter has come in the end to work against the solution of this problem, creating an even bigger problem, or at least harder to solve, insofar as it no longer depends on the legislator's will to untangle the embroilments caused by the enforcement of its own provisions.

Witness the situation of the Iberian Lynx. Poison use in this case is conceived as a means of avoiding damage caused by certain livestock predators. This means that use thereof is protected and even favoured by certain legal rules dating right back to the times of Charles I. We then come to the twentieth century and the creation by a decree of 11 August 1953 of the Boards for Extinction of Harmful Animals and Protection of Hunting (*Juntas de Extinción de Animales Dañinos y Protección a la Caza*). Chapter I thereof laid it down that 153 lynxes could be hunted in the period running from 1954 to 1962. Only four years later, an ORDER dated 2 March 1966 *forthrightly banned the hunting and capture of the Iberian Lynx throughout the whole Spanish territory for an indefinite time* on the grounds that the species stood on the brink of extinction. This points to a clear lack of foresight, when a legal rule favouring its capture and death had to be followed instantly by last-ditch protection measures. Today the species is hanging on only due to specific recovery programmes. At international level, protection of the *Lynx pardinus* arrived in 1977 when it was

included in appendix II of CITES (Spain has been member of CITES since 1986) and was then upgraded to Appendix I in 1990, kick-starting the lynx conservation and recovery plans of the nineties and including it as a species in danger of extinction in the Catalogue of Threatened Species (Royal Decree 439/1990).

A specific aspect dealt with herein, one I have had occasion to look into myself, is the use in poisoned-baits of substances that have been banned for years on the Community market. These substances are known to have devastating effects on wildlife, needing only a tiny dose to achieve their lethal purpose. I am referring here specifically to strychnine, aldicarb and carbofuran.

Prohibition of strychnine use as a phytosanitary product dates from 1991, as a pesticide from 1994 and as a biocide from 2006. Aldicarb has been banned as a phytosanitary product since 2003 while its prohibition as biocide dates from 1998. Carbofuran was the last of these substances to be banned as a phytosanitary product in 2007.

I would like to look at a situation deriving from the legislation applicable to this matter. I agree with the text's stance here that use of these substances in poisoned-baits is likely to stem from stocks that were not withdrawn when its use was banned by regional authorities. Under existing legislation the use of these substances is strictly forbidden for the abovementioned purposes but not for other possible uses. Indeed the overarching legislation, namely Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals, generally known as the REACH regulation, lays down the obligation of registering chemicals manufactured or imported in quantities of over one tonne. This means not only that there is no need to register products covered by the exceptions laid down in article 9 of the Regulation (i.e., chemicals to be used for the purposes of product- and process-oriented research and development, pre-registered products and those considered to have been registered already, such as manufactured and imported active substances used as authorised phytosanitary products or biocides) but also those manufactured or imported in quantities of less than one tonne. Obviously the use made of register-exempted products under REACH should not be any of the uses that have been expressly forbidden.

There is no doubt that these substances are highly toxic and hence hazardous and are considered as such in the Regulation of the European Parliament of 16 December 2008, but the truth is that marketing thereof is legally feasible as long as this meets the requisites laid down by current regulations. To this must be added the fact that these three substances have been pre-registered in the European Chemicals Agency (ECHA) by various operators, without having yet concluded all the periods within which registration properly speaking is obligatory.

The underlying problem, in my view, is that, despite the painstaking regulation on the manufacture, importation and marketing of these substances, there is an aspect that has not been tackled as a whole, namely the use to be made of these substances by the final recipient. It goes without saying that the starting point must be proper determination of the expressly forbidden uses of substances considered to be highly hazardous due to their toxicity, but reality doggedly shows that the problem will not be eliminated unless accompanied by effective control of the final use made of those already acquired, and not necessarily illegally.

The bodies responsible for controlling these substances are the organisations of Spain's various regional authorities (*comunidades autónomas*: CCAA); although these authorities have drawn up surveillance and inspection programmes, there are still too many circumstances escaping the net.

This aspect of effective government monitoring and control of toxic substances used to make poisoned-baits is yet another factor that has to be taken into consideration in tackling this problem. Indeed, I would argue that it is one of the most important, to ensure ongoing consistency of this struggle on all its fronts.

Raquel Muñoz Aranz

Prosecutor of the Spanish Environmental Prosecution Office.

Introduction

Poisoned-baits have traditionally been used in Spain's countryside as predator control method. Initially used by livestock farmers to protect their animals from attack during their seasonal movements of short- or long-range transhumance, it has over the years been taken up mainly by the hunting community. Poisoning nowadays is commonest on improperly run hunting grounds, although there has also been another upsurge in the use of poisoned-baits in livestock farming. Recent convictions in criminal proceedings show that it has also spread into other activities like beekeeping and pigeon racing.

The environmental effects of poison have been devastating and it has now become one of the main threats to biodiversity. Figures recorded from 2005 to 2010 show that poisoning is still a habitual practice, with grave consequences for both wildlife and domesticated animals. Its indiscriminate use against certain species considered until the eighties of last century to be "vermin" has led many of these species, even after the banning of the use of poisoned-baits, to be classified as in danger of extinction or vulnerable. Witness the Iberian lynx, Spanish Imperial Eagle, Red Kite or Cinereous Vulture.

After centuries of indiscriminate use, Spanish Criminal Code categorised the use of poison for fishing or hunting purposes as a wildlife crime in 1995 on the grounds precisely of its environmental impact and non-selective nature. Practically all Spanish Regional Governments (henceforth CCAA), moreover, have passed legislation to forbid and punish the illegal use of poison. This legal framework has been fleshed out by plans and strategies drawn up at regional and national level with varying degrees of participation, measures and actions for the prevention, investigation and prosecution of this crime.

Pulling together all these strands, this text plans to work from the legal *acquis* and accumulated practice built up by various organisations and groups during years of concerted efforts to wipe out the illegal use of poison in Spain's countryside. Some of the chapters of this manual have been written by legal professionals and experts in the investigation of a crime that is often extremely difficult to clear up. It has also been favoured by effective impunity due to the sheer complexity of this investigation and the lack of forthright legal response. Recording all this past experience is a duty to those who will come after, who we hope will find in these pages responses and solutions in such legal action as they may take or be responsible for. Primarily legal in con-

tent, it is designed to be of use above all to legal professionals, judges or public prosecutors, as well as members of state security forces and corps. Some of its pages, nonetheless, deal with circumstances that will be of interest to the whole society, involving as they do the loss of a heritage that belongs to all of us.

This work has been drawn up within the framework of the *Life+ VENENO* project, which aims to bring about a significant reduction of wildlife poisoning in Spain. The project was carried out from 2010 to 2014. It was financed 40% by the European Commission and 26% by *Fundación Biodiversidad*.

SEO/BirdLife, together with the *Fondo para la Conservación del Buitre Negro* and the *Junta de Comunidades de Castilla-La Mancha* are the project beneficiaries. The co-financers, as well as the abovementioned ones, are the *Ministerio de Agricultura, Alimentación y Medio Ambiente*, the *Cabildo de Fuerteventura*, the *Junta de Andalucía* and the *Gobierno de Cantabria*.

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More information at:

www.venenono.org

<http://lawyersfornature.org>

Chapter I

THE ILLEGAL USE OF POISONED-BAITS

David de la Bodega Zugasti, Project Manager of the *Life+ VENENO* project. SEO/BirdLife

The illegal use of poison

Poisoned-baits is used to kill animals considered to be harmful to certain activities, mainly hunting, livestock-farming and crop-farming but also bee-keeping and pigeon-racing. It sometimes affects pets like dogs and cats and is also used as a revenge-spurred way of settling feuds between private individuals.

When speaking about illegal poisoning we are talking about a method of hunting animals. This involves steeping a food item in a toxic substance, normally phytosanitary products like insecticides, rodenticides, fungicides, herbicides or molluscicides (snail and slug pellets). Once prepared, the bait is left in the countryside or a built-up area to lure in the target species and kill them by poisoning. Poisoning is therefore a mass-killing, indiscriminate and violent method that has a huge knock-on effect on non-target species, including threatened species and pets.

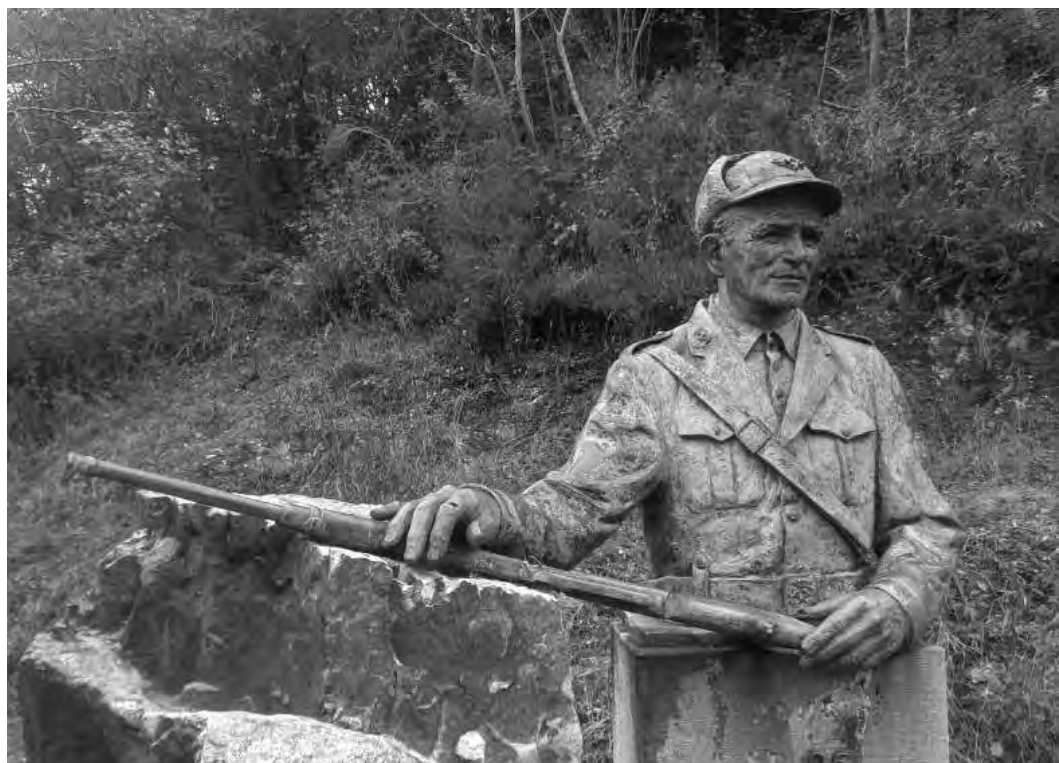
The use of poisoned-baits is a mass-killing method insofar as it might kill a large number of animals of different species in a brief period of time and without any possibility of quantitative control. Witness the case of 140+ raptors (Black Kites, Red Kites, Egyptian Vultures and Griffon Vultures) killed by poisoned-baits in hunting grounds in the Spanish towns of Tudela and Cintruénigo in 2012 or the six Spanish Imperial Eagles killed in the state *Encomienda de Mudela* in Cuidad Real.

Its mass-killing nature is closely bound up with its indiscriminate nature, since it is not always possible to refine the target species exactly. Any animal could end up swallowing the poison, even man. The diner at the poisoned banquet may not always be the invited guest but it will end up dying just as surely. This death will be cruel too, since the substances used normally provoke internal haemorrhages and affect the nervous system, leading to convulsions or respiratory failure.

History of poisoning in Spain. A legal viewpoint

We could analyse the history of poisoned-baits use in Spain, which is almost as old as mankind itself, but our main concern here, given the nature of this book, is to find out how this use has been dealt with in national legislation and how the legal consideration of this practice has evolved to our days, with the social consideration following in its wake.

The first record we have of poison-use regulation is bound up with a very specific sector: livestock farming. Sixteenth-century animal herders suffered wolf attacks when moving their flocks from winter to summer lands and vice versa. In 1542 Charles I therefore passed a decree in Valladolid entitling towns to pass wolf-slaying byelaws and rewarding those who actually killed them. To do so they could use a concoction known as “*yerba de balletero*” (crossbowman’s herb), an ointment applied to the tips of lances or arrows and obtained from the roots of white hellebore (*Veratrum album*) or black hellebore (*Helleborus niger*) and aconite (plants of the *Aconitum* genus). The plants’ high toxicity weakened or killed the animal hit by the lance or arrow and made it easier to capture. The authorisation granted by the *Cortes* of Valladolid was an exception to the general ban of hunting with wiles of this type; it was permitted only for hunting wolves. Anyone who injured or killed any other game using “*yerba*” could be punished.



“Statue of Pepín el de Fresneda”, standing in the middle of the town, Cantabria. This warder was a renowned as a wolf slayer using poisoned-baits. © David de la Bodega

The first sixteenth-century legal references to the use of poison reflect a selective hunting method, since the lance- or arrow-tip toxins only reinforced the effect of the weapons fired at specific species. This concept of poison-use therefore differs greatly from references thereto in national legislation of later centuries, where a mass-killing, non-selective method is now being spoken of. The toxin is no longer smeared on the tips of hunting weapons but used in bait to be found and eaten indiscriminately by any predator.

Midway through the nineteenth century Royal Decree (*Real Decreto*) of 3 May 1834 sets forth a series of norms that overrode previous hunting and fishing regulations. Although no explicit reference was made to the use of poison for hunting purposes, a legal framework was laid down for future legislation condoning the elimination of certain species considered to be “vermin”, the government promoting this practice and even rewarding it with subsidies.

Article 25 of the *Real Decreto* of 1834 promoted unrestricted hunting of animals considered to be vermin, citing wolf, fox, beech marten, wildcat, badger and polecat. *To encourage the extermination of certain vermin species, persons presenting carcasses thereof will be rewarded as follows: 40 reales for each dog wolf; 60 reales for each bitch wolf and 80 if this bitch be pregnant; and 20 reales for each wolf cub* (rewards were smaller for the rest of the species). Valid hunting methods were considered to be traps or any type of wire snare and gin, anyone using same being bound to give due indication thereof by means of a standard warning.

The hunting law (*Ley de Caza*) of 10 January 1879, working from the provisions of the 1834 *Real Decreto*, lays down in its article 40 the germ of the abovementioned regulation based on the stigmatisation and elimination of a series of species deemed to be vermin. The decree stipulates that “*Local mayors shall encourage the persecution of wild beasts and vermin, offering a reward to whomsoever can accredit having killed them*”. Under this legislation scheme it is the local authority that is responsible for promoting the hunting of certain animals classified as “vermin”, incentivising this elimination with public funds. The decree was to have fostered a development regulation defining the animals to be considered as such; in the end this regulation was never actually passed.

In pursuit of the goals laid down in the 1879 *Ley de Caza* it was established that “*Whenever deemed fitting, local mayors, after previous authorisation by the Civil Governor of the province, will be entitled to organise driven hunts for the destruction of vermin and the poisoning thereof*” (article 41). Poison thus features as a predator control method that has to be authorised by the state government. To ensure that poisoned-baits use posed no danger to public health, the following was stipulated: “*Necessary measures will be taken to ensure the safety of people and conservation of property, establishing the hunting arrangement to be used, the duration, order and workings thereof and any other circumstances that may prove necessary to ensure the regularity of the operation and forestall any danger and drawbacks*”. The only caveats, therefore, concerned people or property, without showing concern at any moment for environmental damage.

Driven hunts and poisoning had to be led by experts appointed by government authorities; they also had to be announced three days running by means of local proclamations in the surrounding towns and villages.

To our knowledge the 1879 *Ley de Caza* is the first legislation to make mention of a form of predator control that is no longer selective like the toxin-tipped arrows and lances used in “*yerba de ballestero*”. Baits were strewn around the local countryside to be eaten by certain species that would then be poisoned to death.

The 1902 *Ley de Caza* brought in some new features in the persecution of vermin. It re-itemised the species that could be freely hunted, either by driven hunts or poisoned-baits. These were listed as wolves, foxes, beech martens, wildcats, lynxes, badgers, ferrets and others determined by the regulation (article 39). As for the reward to be offered for their death, the law laid it down that “*local councils shall set aside a sum in their budget, among obligatory expenditure, to cater for these rewards.*” (article 40) It was therefore the government itself that was incentivising wildlife poisoning, building up around it an economic activity and lifestyle that the poorest classes found to be a useful government-sponsored livelihood.

Hunts and poisoned-baits posed, which still had to be proclaimed for 3 days beforehand, now had to be authorised not only by the Civil Governor but also by affected landowners, with the *Guardia Civil* supervising the procedure.

Section 7 of the Regulation (*Reglamento*) of 3 July 1903, for application of the *Ley de Caza*, developed the provisions of the *Ley de Caza* of 1902. It specified the species considered to be vermin and the head price for each one. The list included species such as the Iberian lynx and birds of prey, including all the huntable raptors according to the classification of wild animals laid down in article 2, involving species such as Imperial Eagle, Bearded Vulture, Egyptian Vulture and the kites (black and red).

Under the Hunting Regulation (*Reglamento de Caza*) Civil Governors were not allowed to approve any local budget that did not earmark a sum for payment of vermin carcasses (article 67). To collect their reward the vermin killers had to present the carcasses of their killed animals in the local council. If these carcasses were wolves or foxes, the tail and ears would then be cut off; smaller animals would have their skin cut off and birds their head and talons. These precautions were taken to prevent bounty hunters going from council to council to collect multiple rewards for the same carcass.

Later legislation included some Royal Orders (*Reales Órdenes*) reminding local councils and Civil Governors of their beholden duty to set aside sums from public funds in their budgets for the extinction of the wolf and prevention of the harm it wreaked on livestock. An example of such legislation is the circular royal order of 8 July 1915, stipulating that Civil Governors should *urge mayors to include in their budgets the necessary sums for rewarding vermin hunters*. This stipulation was a response to complaints from the President of the Association of Livestock Farmers of the Realm (*Asociación de Ganaderos del Reino*) about the insufficient zeal of councils in enforcing article 40 of the *Ley de Caza* of 1902. This order was then followed by others of a similar tenor, dated 28 October 1904, 15 January 1913 and 7 May 1913. All of them stressed that the control of vermin was a livestock-centred measure to extinguish one of its main perils: the wolf.

Predator control legislation centring on the extermination of certain species peaked with the approval of the *Decreto* of 11 August 1953, laying down the obligation of setting up Provincial Boards for the Extinction of Vermin and the Protection of Hunting (*Juntas Provinciales de Extinción de Animales Dañinos y Protección a la Caza*). This decree institutionalised the goal of exterminating certain species, establishing the obligation of setting up these boards to protect the hunting activity. The stated purposes of these boards included:

- a) *Organising plans for the struggle against vermin, each board liaising as necessary with neighbouring ones.*
(...)
- c) *Procure the supply and distribution of poison, wire snares and other extermination resources.*
- d) *Reward vermin hunters and whomsoever can reliably vouch for a contribution to the fight against vermin*

The Boards had a devastating effect on the conservation of some species, as shown in the following tables, listing the animals eliminated against rewards paid by the *Juntas de Extinción de Animales Dañinos* from 1954 to 1962:

	1954	1955	1956	1957	1958	1959	1960	1961	1962	Total
Golden Eagle		26	101	155	84	67	348	425	1	1207
Eagle (s)	194	263	415	499	428	647	866	390	107	3.809
Harriers		34	173	149	215	202	116	345	123	1357
Hobbies		324	783	713	591	875	501	429		4216
Vultures							1	1		2
Owls	59	10	473	47	69	81	133	117	49	1038
Ravens		606	832	2630	10378	4212	4128	23472	6163	52421
Choughs		114	99	22	362	513	1168			2278
Sparrow Hawks	7	11	59	1	42	17	66	31		234
Rooks		306	544	1525	1162	4753	2372	1768	2270	14700
Falcons	17	11	22		5	218	1	1770		2044
Kites		388	869	1569	2098	2901	1193	1080	63	10161
Magpies	69	3958	6838	4239	6021	17700	12970	51494	1677	104966
Other birds		7514	45185	108556	95892	35942	42888	4199	347	340523
Snakes		1952	260	197	2496	1658	1849	2484	166	11062
Lizards		4756	1254	1902	1012	3463	3159	3017	170	18733
Vipers		2	65	18						85

Table 1. Number of birds and reptiles eliminated against rewards paid by the *Juntas de Extinción de Animales Dañinos*. 1954-1962.

	1954	1955	1956	1957	1958	1959	1960	1961	1962	Total
Wolves	64	122	269	231	220	235	134	148	47	1470
Foxes	288	2712	5782	6306	8539	8386	8827	10345	2569	53754
Stoats		12	135	233	471	605	709	249	61	2475
Beech martens	10	8	121	49	32	51	46	43	1	361
Cats	55	248	368	517	514	656	462	551	108	3479
Genets		176	723	522	577	572	684	966	36	4256
Lynxes	11	7	19	29	33	19	21	13	1	153
Otters		3	22	4	12	41	13	4	5	104
Badgers	31	37	283	224	385	123	54	184	18	1339
Polecats	1	336	469	439	684	936	554	855	30	4304

Table 2. Mammals eliminated against rewards paid by the *Juntas de Extinción de Animales Dañinos*. 1954-1962.

It is striking to see how many species then considered to vermin are now listed as threatened, such as the Iberian Lynx, the Spanish Imperial Eagle and the Red Kite. The extermination crusade initiated in the C19th, using poison and other wiles, now prohibited, would no doubt have contributed greatly to their parlous state today. The species classification changes filtering into legislation as from the seventies and eighties of last century also reflect increasing awareness among society of the importance of conserving our natural heritage.

The Hunting Law (*Ley de Caza*) 1 of 4 April 1970 brought in timid legislative changes in predator control and poisoned-baits use. First and foremost it scraps the classification of vermin (*animales dañinos*) and replaces it with those of larger game species (*caza mayor*) and smaller game species (*caza menor*). The former category, however, includes such species as bear, lynx and wolf, while the latter, further developed by *Decreto* 506/1971 of 25 March approving the regulation for enforcement of the *Ley de Caza* of 4 April 1970, still includes such species as kites, eagles, vultures, Bearded Vulture or Egyptian Vultures and so on, taking in many birds currently considered to be threatened.

As for poisoned-baits use, article 31.18 of the 1970 law forbids “*the unauthorised tenure or use of animals, utensils, gear or products applicable to the capture or attraction of hunting species detailed in the application regulation of this law*”. Using poisoned-baits without such authorisation carried the penalty, *as perpetrators of a crime, of custodial sentence of one month and a day to six months or a fine of 5000 to 50,000 pesetas plus forfeiture of the hunting licence and entitlement thereto for a period of from two to five years*.

The regulation referred to in article 31 is *Decreto* 2122/1972 of 21 July regulating hunting resources and weapons calling for special government authorisation. This decree grants an exception to the prohibition of poison use upon obtaining the necessary government authorisation. It is therefore clear that the last state hunting law left open the possibility of wildlife poisoning. The use of bait or foodstuff and objects used to hunt when poison is employed in its manufacture or forms part thereof called for authorisation issued with the conformity of the Civil Governor of the province where such bait is to be used (article 12).

For the Civil Governor to give his go-ahead, according to *Decreto 2122/1972*, it was necessary for the proceedings to include:

- Determination of the means to be used with expression of their characteristics and arrangements and the time and place of use.
- Formal commitment of the applicant to personally monitor said use, guaranteeing protection of people and pets.
- Prior report of the local healthcare services when poisoned-baits are being used.
- Report on the applicant's past history and behaviour.

The authorisation had to be communicated to the *Guardia Civil*; and, at the applicant's cost, to any people for whom the hunting means may pose a danger, to them themselves or their property, using such procedures as are deemed to be most fitting in each case.

Decreto 2122/1972 was overridden by *Real Decreto 2179/1981* of 24 July, approving the Weapons Regulation (*Reglamento de Armas*), although it would not be until 1983 that the last use-of-poison authorisation was issued and this use ceased to enjoy the blessing of the government.

Subsequent legislation also included prohibition of the use of mass-killing, indiscriminate methods as reflected in the *Ley de Caza* of 1970 and definitively ruled out the use of poisoned-baits, albeit leaving open the possibility of authorisation. Thus article 34 of the Nature Site and Flora and Fauna Conservation Law 4 of 27 March 1989 (*Ley de Conservación de los Espacios Naturales y de la Flora y Fauna Silvestre*) forbids the tenure, use and marketing of all mass-killing and indiscriminate procedures for the capture and killing of animals, and in particular poisoned-baits.

One of the main changes brought in by *Ley 4/1989* as compared with previous centuries was the creation of the National Catalogue of Threatened Species (*Catálogo Nacional de especies amenazadas*). The preamble, moreover, stated that their survival should be guaranteed by prohibiting their capture. This catalogue included some species like lynx, bear, Bearded Vulture and Cinereous Vulture; this therefore marked a landmark recognition of them as species worthy of protection rather than dismissing them as harmful vermin. This protection kicked off with *Real Decreto 3181/1980* of 30 December, protecting certain wildlife species, and precise rules were laid down for enforcing this protection. Coming down to our days, this has become the Spanish Catalogue of Threatened Species (*Catálogo Español de Especies Amenazadas*) and the List of Wildlife Species under the Special Protection Scheme (*Listado de Especies Silvestres en Régimen de Protección Especial*) (*Real Decreto 139/2011*) regulated by the Biodiversity and Natural Heritage Law 42 of 13 December 2007 (*Ley del Patrimonio Natural y de la Biodiversidad*).

Social rejection of poisoned-baits use was definitively reflected in law for the first time with the penalisation of this practice laid down in the Criminal Code Law 10 of 23 November 1995 (*Ley Orgánica del Código Penal*). The first wording of its article 336 ran as follows:

Whosoever, without being legal authorised to do so, should use poison, explosive resources or other instruments or similar wildlife-harming artefacts for the purposes of hunting or fishing will be punished with a prison sentence of six months to two years or eight to twenty four months

Illegal use of poisoned-baits. Legal analysis and investigation.

paying the fine fixed by the judge. Should the damage caused be significant, the upper limit of the aforementioned prison sentence will be enforced.

The Criminal Code and the hunting and nature-conservation legislation that began to be drawn up as from the eighties and nineties in Spain, both at regional and state level, closed a long period of Spain's social and legislative history that had fomented the persecution of certain species and sparked off a decline in their numbers that has dragged on to our days. Perhaps the next step, now that the cruelty of this situation appears unacceptable to society, would be the revision or repeal of other existing laws such as those referring to predator-control methods, still condoned by current law.

Chapter II

THE SITUATION OF WILDLIFE POISONING IN SPAIN (2005-2010)

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The use of poisoned-baits has environmental consequences that make their presence felt year after year in the countryside. As recorded in the previous Chapter, the persecution of certain species deemed to be vermin has decreased their numbers and brought many to the point of being listed as “In danger of extinction” or “Vulnerable”.



Poisoned-baits is often concocted using common foodstuff. © EAV.

According to the latest Red Book of the Birds of Spain (*Libro Rojo de las Aves de España*) (Madroño & AL., 2004), which checks out the current state of conservation of Spanish birdlife, illegal use of poisoned-baits is the main threat faced by at least seven Annex I species of the Birds Directive (the annex listing EU's most threatened, vulnerable or rarest birds). These are the Spanish Imperial Eagle, Egyptian Vulture, Cinereous Vulture, Golden Eagle, Bonelli's Eagle, Red Kite, Black Kite and Bearded Vulture.

Illegal poison use also affects mammals such as the brown bear and wolf, species listed as top priority and included in Annexes II and IV (maximum degree of protection) of the Habitats Directive (in the case of the wolf in the Iberian Peninsula, only the populations to the south of the River Duero are included).

It has to be borne in mind here that the figures of poisoned animals to hand are underestimates. Very few poisoned animals are actually found so the recorded ones are only the tip of the iceberg.

Poison use has knock-on effects beyond the immediate death of the victims. Any particular death might reduce the species' range, isolate populations or balk generational renewal. Other consequences that have come in for less study are animals that are affected without actually being killed. Some of the poisons used might damage the immune system, change the behaviour or physical state of the animals or produce illnesses.

This Chapter sets out the environmental consequence of poisoned-baits use from 2005 to 2010 in Spain. The figures shown below have been taken from information input by the CCAA on episodes that have been detected and analysed in said timeframe. These figures in no way represent the scale of the problem as a whole, since, as already pointed out, few poisoned animals are actually found; the detection rate is in fact as low as 7% or 10% (WWF/Adena, 2006) and not all carcasses found are subjected to toxicological analysis to confirm death by poisoning.

Species affected

From 2005 to 2010 a total of 3183 definite poisoning episodes were detected in Spain, ratified by the corresponding toxicological analysis. By "poisoning episode" here we mean each one of the cases involving the detection of poisoned wildlife, pets or baits. In all 4395 animals of different species killed by poisoned-baits were collected and analysed. Bearing in mind that only 7% to 10% of poisoned animals are ever found, this means we are talking about c. 45,000 animals killed by poison in a period of only five years. This staggering figure, plus the fact that many of the species involved are highly threatened, shows the size of the threat posed by this activity to Spain's biodiversity and the urgent need of measures to eradicate it.

The species analysed included some listed as "In danger of extinction", such as Red Kite, Spanish Imperial Eagle and Bearded Vulture, plus other classified as "vulnerable" such as Cinereous Vulture, Egyptian Vulture and Black Stork (listed as "In danger of extinction" in some CCAA like Andalucía, Castilla-La Mancha, Extremadura and Madrid). Ranked by number of species

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In 2012 a single poisoning episode affected six Imperial Eagles in “Encomienda de Mudela” (Cuidad Real).

affected and the degree of threat, the following poisoning incidents per species have been selected in the period analysed (Table 3):

Especie	Número
Dog (<i>Canis familiaris</i>)	953
Griffon Vulture (<i>Gyps fulvus</i>)	575
Fox (<i>Vulpes vulpes</i>)	397
Red Kite (<i>Milvus milvus</i>)	297
Black Kite (<i>Milvus migrans</i>)	212
Cat (<i>Felis silvestris catus</i>)	207
Cinereous Vulture (<i>Aegypius monachus</i>)	133
Buzzard (<i>Buteo buteo</i>)	123
Bee-eater (<i>Merops apiaster</i>)	107
Magpie (<i>Pica pica</i>)	88
Egyptian Vulture (<i>Neophron percnopterus</i>)	69
Raven (<i>Corvus corax</i>)	66
Golden Eagle (<i>Aquila chrysaetos</i>)	41
Marsh Harrier (<i>Circus aeruginosus</i>)	35
Spanish Imperial Eagle (<i>Aquila adalberti</i>)	30
Black Stork (<i>Ciconia nigra</i>)	23
Wolf (<i>Canis lupus</i>)	16
Montagu's Harrier (<i>Circus pygargus</i>)	15
Bearded Vulture (<i>Gypaetus barbatus</i>)	13
Eagle Owl (<i>Bubo bubo</i>)	9
Booted Eagle (<i>Hieraaetus pennatus</i>)	7
Bear (<i>Ursus arctos</i>)	3

Table 3. Species poisoned by threat listing or number of animals affected.

Apart from pets (dogs and cats) the table shows that the animals most affected were raptors, especially scavenging species. These figures bring out the indiscriminateness of this predator-control method, affecting a vast range of species besides the targeted ones.

A species worthy of special mention here is the Bee-eater. This summer visitor breeds in a large part of the Iberian Peninsula, arriving in spring and leaving for sub-Saharan Africa again in late summer. While here they suffer direct persecution from some beekeepers who have turned to poisoned-baits as a way of protecting their hives from occasional Bee-eater attack.

The most affected species, as Table 3 shows, is the dog. Like cats, many of these dogs are feral and are therefore often the victims of poisoned-baits. The figures given by the CCAA do not allow us to pinpoint the dog-poisoning sites. The Antidote Programme (*Programa Antídoto*), however, has now set up a telephone attention scheme called “*SOS Veneno*” (+34 900 713 182) to report poisoning episodes. This has shown that most of the reports of allegedly poisoned dogs and cats occur in the urban or suburban area. This represents poison use that differs from its use in the countryside, usually prompted by motives of revenge or the elimination of animals deemed to be a nuisance. The high number of pet-poisoning episodes is also due to the fact that they are reported by the pet owners whereas wildlife poisoning episodes usually go unreported.

The case of the Red Kite

Table 3 shows that the Red Kite is the fourth most commonly found poisoned species, with 297 birds found dead between 2005 and 2010. This species has been listed as “In Danger of Extinction” by *Real Decreto* 139/2011 of 4 February for development of the List of Wildlife Species under the Special Protection Scheme (*Listado de Especies Silvestres en Régimen de Protección Especial*) and the Spanish Catalogue of Threatened Species (*Catálogo Español de Especies Amenazadas*), upgrading its threat level due to the ongoing fall in its numbers.

The 1994 national count of this species threw up a total of 3300-4100 breeding pairs; by 2004 this estimate had plunged to about 1900-2700 pairs. The Red Kite also seems to have suffered a 50% fall in Castilla y León in only seven years; this region previously accounted for about half of the Spanish population. It has recently died out from the Canary Isles and locally in several marginal zones of its Iberian range; it is also on the brink of extinction in the Balearic Isles, Andalucía and Castilla-La Mancha, and has suffered recent population falls in the region of Madrid, Doñana and its hinterland and locally in Extremadura. Only the populations of north-east Spain (Basque Country, La Rioja, Navarra, Aragón and Catalunya) seem to be holding steady or even recording local rises.

Judging from the figures of the *Programa Antídoto*, the Red Kite features among the species most affected by illegal poison use with 408 birds poisoned from 1990 to 2000.

According to experts, illegal poisoning has been one of the main non-natural causes of Red Kite fatality in the last 20 years. Illegal poisoning is one of the prime causes of the species’ decline in Spain, where the number of wintering birds has fallen by nearly 50% while the breeding population has dropped by 40-46% from 1994 to 2004.



The Red Kite has been listed as “In danger of extinction” among other reasons due to poison use. © Daniel Garrido.

This species’ particular sensitivity to poisoned-baits makes the Red Kite a canary-in-the-mine species for this problem.

The Red Kite is also particularly sensitive to the use of rodenticides. Mass fatalities of this species were detected during the vole control campaigns carried out in Castilla y León in 2007, using anticoagulant rodenticides.

Geographical breakdown of illegal poisoning episodes

An account is now given of the geographical breakdown of the illegal poisoning episodes detected from

2005 to 2010. This breakdown and the higher number of episodes detected in some regions than others may reflect not only the higher use of this predator-control method in these areas but also a greater detection effort. No poison episodes comes to light if it is not looked for, and the greater or lesser involvement of the various government authorities and the availability of investigation and persecution wherewithal all affect the poisoning-episode detection rate.

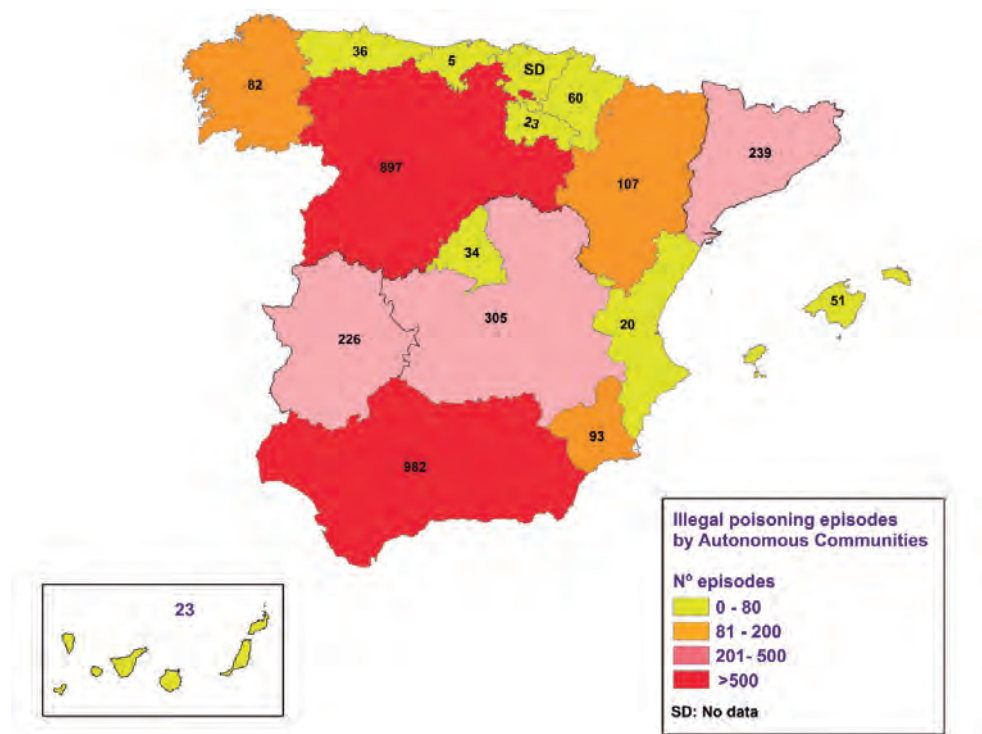


Figure 2. Poisoning episodes by CCAA (2005-2010).

The CCAA (see Figure 2) showing the highest rate of poison from 2005 to 2010 are Andalucía (31% of the cases), Castilla y León (28%), Castilla-La Mancha (10%), Catalunya (8%) and Extremadura (7%). These are all regions with a high hunting activity, where poisoned-baits are often used to control predators that might be competitive natural hunters of species like partridge and rabbit. This comes out from an analysis carried out by the Rural Agents Corps (*Cos d'Agents Rurals*) of Catalunya of 60 criminal sentences involving poisoning cases. Out of the total of 80 people convicted of illegal poisoning use, 62 belonged to the hunting sector and had perpetrated this crime as wardens, owners, tenure holders, partners, workers, managers or leasers of hunting grounds.

As for the number of species affected (see Figure 3), this logically correlates with the number of episodes recorded. It should be stressed here that many of the CCAA recording the highest number of poisoning cases coincide with the habitats of threatened species of the greatest value to Spain's biodiversity such as Spanish Imperial Eagle, lynx, Egyptian Vulture or Cinereous Vulture. The use of poisoned-baits poses a threat to these and other species upon which a huge amount of time, money and resources is spent in an attempt to ensure their conservation; all this work could go to waste if these malpractices continue.

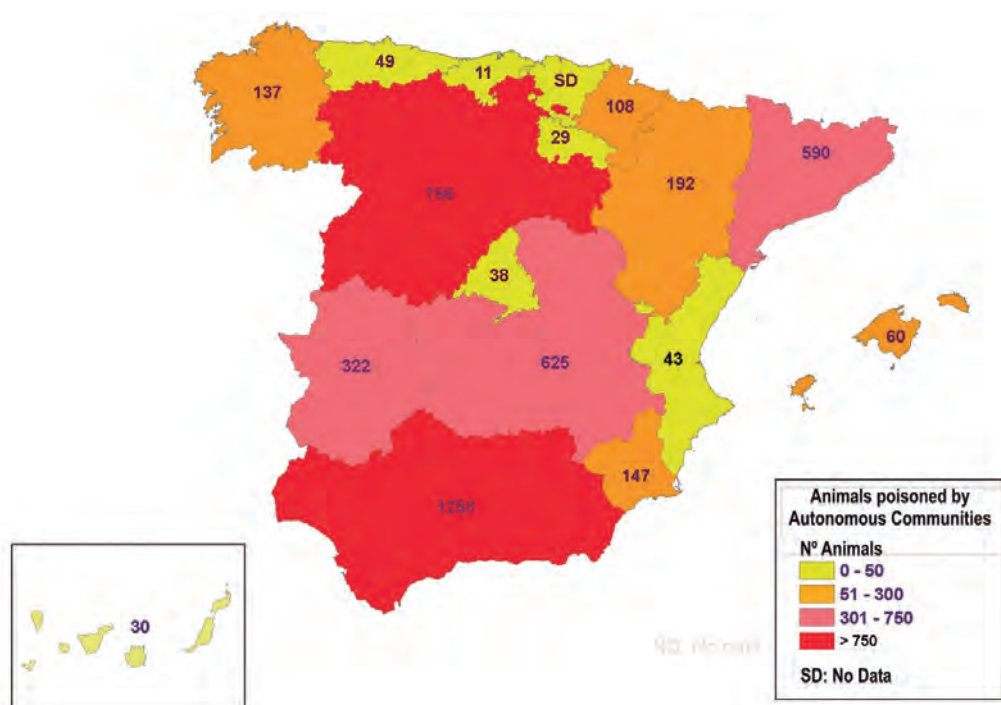


Figure 3. Poisoned animals broken down by CCAA (2005-2010).

Year-on-year breakdown of poisoned-baits use

As for the time breakdown of poison use, Figure 4 shows little variation over the period under study here, with episodes holding fairly steady over time. There was, however, a slight increase of poisoning episodes from 2007 to 2009, coinciding with the implementation of anti-poison measures in some CCAA, such as the approval of plans and protocols, specialisation of environment officers or dog patrols. These measures are likely to have increased the poisoning-episode detection rate.

In 2010 the economic and financial slump that had started a year earlier began to bite. In this year there was a slight decrease in poisoning cases. This could be attributed to past implementation of these new measures with greater effectiveness in the fight against poison use. On the other hand, precisely due to the aforementioned economic slump, many CCAA reduced their anti-poison measures as part of budget cutbacks, especially the carrying out of toxicological analyses. The drop in poisoning cases at this time may therefore have been simply due to a lower detection effort.

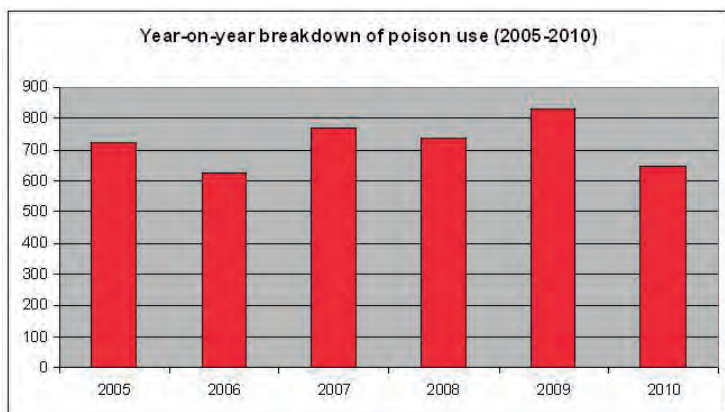


Figure 4. Year-on-year breakdown of poison use (2005-2010).

Substances used as poison and types of bait

The figures contributed by CCAA show that over 70 different substances have been used to make poisoned-baits, most of them phytosanitary products and biocides¹. (De la Bodega, 2012)



Most substances used as poison are phytosanitary products. © EAV1.

1. De la Bodega Zugasti; D. 2012. *Estudio sobre las sustancias que provocan el envenenamiento de fauna silvestre*. SEO/BirdLife. Madrid.

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Some of the 70 substances used as poison in Spain are the following:

Substances recorded in poisoning episodes		
Aldicarb	Diphacinone	Methaldehyde
Alphachloralose	Difenacoum	Methamidophos
Allethrin	Dimethoate	Parathion methyl
Bendiocarb	Disulfoton	Monocrotophos
Benfuracarb	Endosulfan	Methylparaben
Brodifacoum	Endrin	Methiocarb
Bromadiolone	Parathion ethyl	Methomyl
Carbaryl	Strychnine	Naphthalenol
Carbofuran	Fenamiphos	Paraquat
Potassium cyanide	Fenitrothion	Methyl parathion
Chloralose	Phenobarbital	Permethrin
Clofenvinfos	Fenthion	Pentobarbital
Chlorophacinone	Flocumafen	Phorate
Chlorpyrifos-ethyl	Phorate	Piperidinone
Coumaphos	Formotion	Terbufos
Coumatetralyl	Phosmet	Thiodicarb
Demeton-s methyl	Ionol	Triacetin
Diazinon	Ketamine	Triclopyr
Dichlorvos	Lindane	Warfarin
Diquat	Malathion	Zearalenone

Table 4. Some of the substances recorded in poisoning episodes in Spain from 2005 to 2010.

Marketing and use of some of the listed substances is legal; they are authorised mainly for pest control in crop farming. Others, however, like aldicarb (banned in 2003), carbofuran (banned since 2007), strychnine (banned since 1994) or endosulfan, have been left out of the Community list of active substances² authorised for phytosanitary use, on the grounds that they have been shown to be hazardous to human health or the environment. Despite this ban, many of these substances are still being used to make poisoned-baits. This suggests that there is still a sizeable unwithdrawn stock or a blackmarket trade, making it easy for perpetrators of this criminal activity to come by their wherewithal. There is in fact in Spain an Integrated System for the Management of Phytosanitary Product Containers (*Sistema Integrado de Gestión de envases de productos Fitosanitarios*: SIGFITO) but there is no system for management of phytosanitary products whose use of marketing has been banned. There is hence a management system of the containers but not of the contents.

2. This list includes substances that may be used in phytosanitary products if they meet a series of prerequisites. These prerequisites refer to the efficacy of the substance, its composition, characteristics, available analysis methods, incidence on human health and the environment, ecotoxicology, the importance of the metabolites and residues. An active substance can therefore be included in this list only if it has not been listed as a mutagenic, carcinogenic or toxic for reproduction, and if it is not considered to cause endocrine disruption. Neither is any active substance approved if it is considered to be a persistent organic pollutant, a persistent, bioaccumulative and toxic substances or a persistent and bioaccumulative substance.

Of all these substances the most commonly used ones in Spain are the insecticides aldicarb and carbofuran, which feature in 50% and 22% of analysed poisoning episodes, respectively, followed by other products like methomyl (4%), endosulfan (3%), strychnine (3%) and the rodenticide bromadiolone (2%). (See Figure 5).

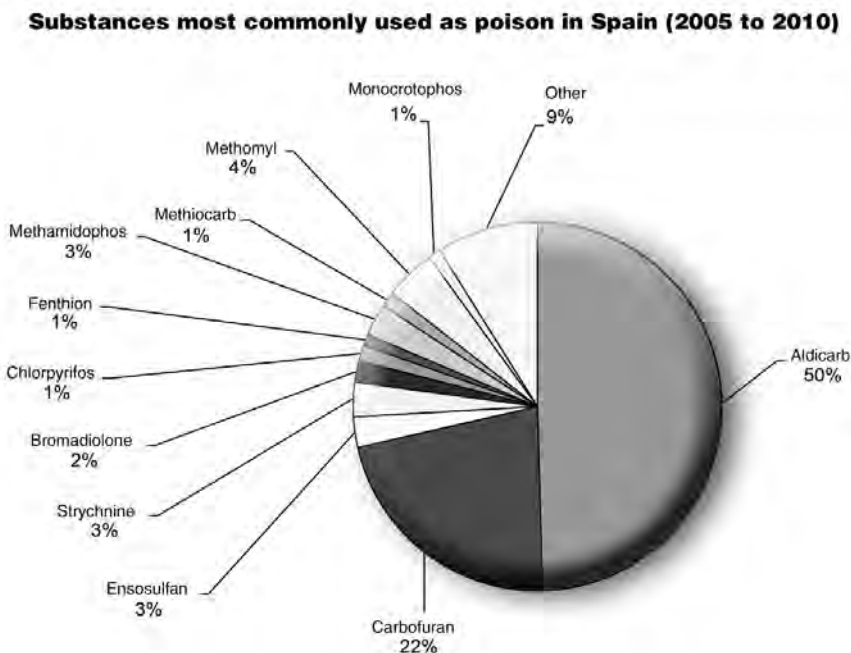


Figure. 5. Substances most commonly used as poison in Spain from 2005 to 2010.

A good idea of the hazardousness of these substances can be gained from an analysis of the median lethal dose (DL50) in each case, i.e., the amount of any material that kills half a group of test animals. In this particular case we analysed aldicarb, carbofuran and strychnine as the most commonly used substances. Figure 6 shows that only a few grams of these three substances might be lethal for a great number of birds and mammals, man included.

These substances formed part of many of the baits found in various poisoning episodes. A total of 1694 baits made from different materials were collected, mainly chunks of meat. On some occasions whole carcasses were steeped in the poison and used as bait; up to 13 poisoned sheep carcasses were found, responsible for mass deaths of Griffon and Cinereous Vultures. Other common foodstuffs used as bait are charcuterie, bread, omelettes or canned sardines. Use of baits of this type without any doubt pose a potential danger from the public health point of view, especially when we bear in mind that some were found in public zones such as schools or parks.

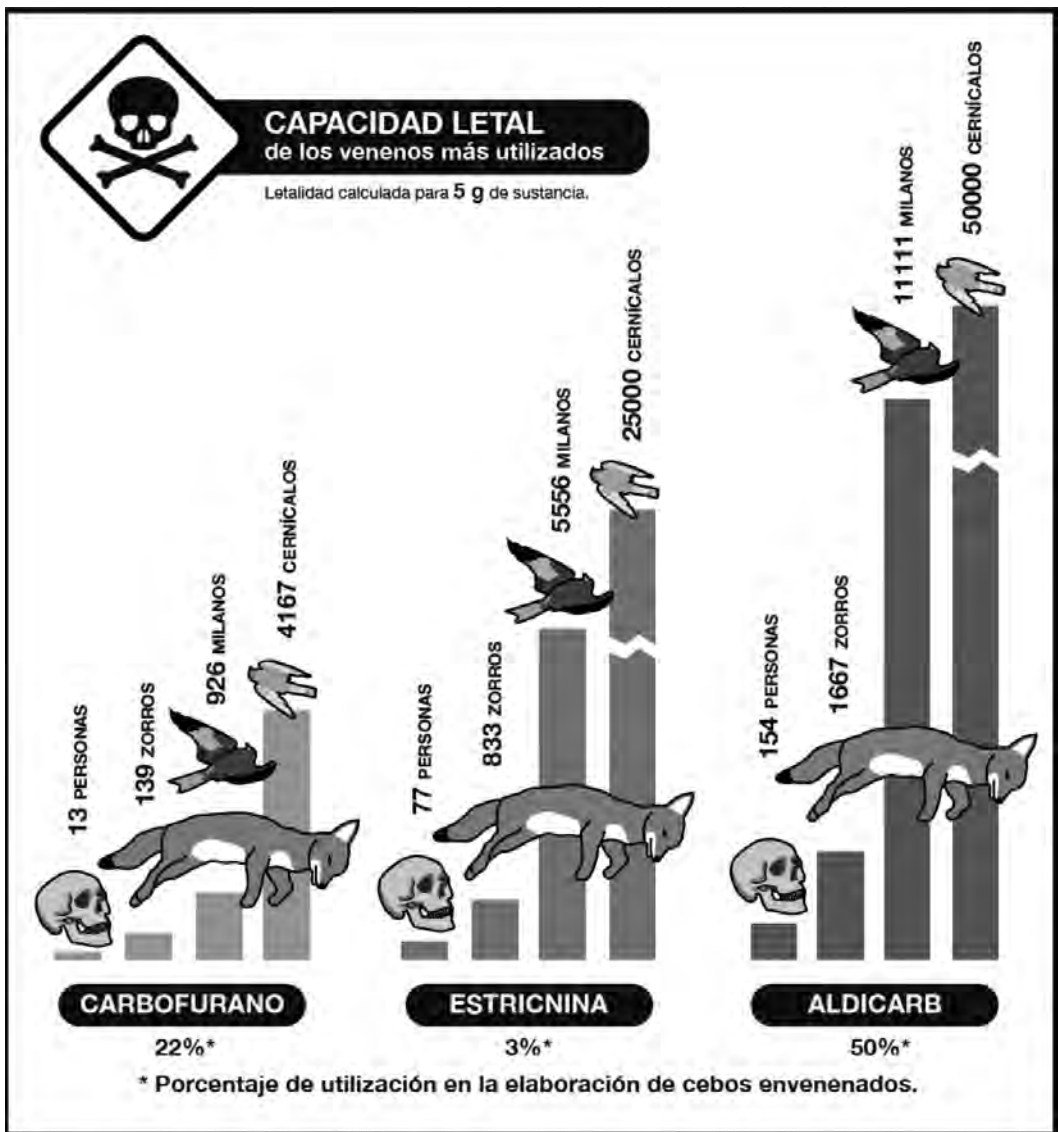


Fig. 6. Potential lethality of the substances carbofuran, strychnine and aldicarb for people, foxes, kites and kestrels and its percentage of use in baits.

Conclusions

Analytical results show that poisoned-baits use is still a common practice in Spain, especially as a predator-control method. Despite efforts made by some government authorities, NGOs and state security forces and corps, this wildlife crime has not been eradicated from Spain's countryside. Although present-day studies do show a fall in the number of episodes and species affected, as compared with earlier studies (WWF/Adena, 2006), thanks to ongoing advances in the fight against poisoned-baits, the figures still show a big impact on certain species, meaning that the necessary resources for preventing, monitoring and prosecuting this criminal practice still need to be provided on an ongoing basis.

Chapter III

ADMINISTRATIVE REGULATION OF ILLEGAL POISONING

David de la Bodega, Project Manager of *Life+ VENENO* project SEO/BirdLife.

Use of poisoned-baits is a crime specified in Spain's Penal Code; it is also an administrative infringement under both Spanish regional and state legislation. The first timid legal measures are also being taken at international level against this practice to act at global level.

There follows an account of the varied legislation outside the criminal sphere forbidding poisoned-baits use.

International legislation

Predator control using poisoned-baits is a widespread practice worldwide, especially in areas where there are conflicts with livestock farming and hunting activities (Graham, Beckerman & Thirgood 2005; Sotherton, Tapper & Smith 2009). Poison is the predator eradication method most widely used around the world (Márquez, Vargas & Fa 2012). Despite this there is no legal framework to ban this practice at international level. In the case of migratory species supranational action against illegal poison use is vital to ensure that action taken in one country is not undone by insufficient action elsewhere.

In Europe poisoned-baits has been banned under the Convention on the Conservation of European Wildlife and Natural Habitats (Berne Convention 19 September 1979). Article 8 of this convention urges contracting parties to prohibit the use of all indiscriminate means of capture and killing and the use of all means capable of causing local disappearance of, or serious disturbance to, species populations. Some of these means are listed in appendix IV, including poison and poisoned or anaesthetic bait. This convention was ratified by Spain on 13 May 1986.

The directives on the conservation of wild birds (Directive 2009/147/EC) and habitats (Directive 92/43/EEC) provide the framework for application of the provisions of the Berne Convention in the EU. Article 8 of the former obliges Member States to prohibit the use of all means, arrangements or methods used for the mass-killing or indiscriminate capture or killing of birds or capable of causing the local disappearance of a species, in particular the use of those listed in

Annex IV, point (a), including poisoned or anaesthetic bait. The Habitats Directive lays down the same prohibition in article 15 and point a) of its Annex VI.

In other regions, like Africa, the African Convention on the Conservation of Nature and Natural Resources lays down several obligations for its signatory parties, including action against illegal hunting methods. Article IX 3 b) iii prohibits the “use of all indiscriminate means of taking and of the use of all means capable of causing mass destructions, as well as local disappearance of, or serious disturbance to, populations of a species, in particular the means specified in Annex 3”. Annex 3 cites poison and poisoned or anaesthetic bait as one of these banned methods.

At international level only the Conservation of Migratory Species of Wild Animals has warned of the need of adopting worldwide measures against this threat to world biodiversity. Resolution 10.26 adopted in the 10th Conference of the Parties of said convention (Bergen, 20-25 November 2011) calls on signatory parties to reduce the risk of poisoning for migratory birds to the minimum. The resolution also provides for the creation of a working group on the minimisation of the poisoning of migratory species. All well as drawing up a manual to address this problem, this working group also published some guides on how best to pursue this objective. Five working areas were established, coinciding with the main causes of the poisoning of migratory species: lead, veterinary products, phytosanitary products, rodenticides and poisoned-baits. These guides would then be sent up for approval of the conference of the parties to meet up in 2014 and could serve as the basis of a legal regulation on the poisoning of migratory species.

Spanish State Legislation

Community law banning poison use for capturing and killing animals was transposed into Spain’s body of law by the Biodiversity and Natural Heritage Law 42/2007 (*Ley del Patrimonio Natural y de la Biodiversidad*) (BOE nº 299 de 14/12/2007). In article 62.3 it bans the tenure, use and marketing of all mass-killing, indiscriminate procedures for capturing or killing animals; its annex VII lists poison as one of these banned methods.

In 2004, moreover, the National Strategy against the Illegal Use of Poisoned-baits in the Countryside in Spain (*Estrategia Nacional contra el Uso Ilegal de Cebos Envenados en el Medio Natural en España*) was passed with a healthy consensus; this lays down the guideline criteria for putting an end to this problem. It is broken down into three major objectives: firstly, giving information and raising awareness; secondly, prevention and deterrence; and thirdly prosecution of the crime. For each of these goals a series of criteria are laid down to work towards eradication of the illegal use of poisoned-baits.

Spanish Regional Legislation

As well as European and national legislation CCAA have also drawn up rules to ban use of these substances as poison at regional level. This prohibition is laid down in hunting and nature-protection regulations. Most CCAA have passed a specific regulation to ban the illegal use of poison.

The following tables give an account of the basic contents in each one of them (Table 5) and the infringements provided for in the various CCAA for poison use (Table 6).

Spanish Regional legislation on illegal poison use		
CCAA	Legislation	Provision
Andalucía	Ley 8/2003, de 28 de octubre, de la flora y la fauna silvestres de Andalucía (Andalusia flora and fauna law)	article 8, 16, 33 and 75 Annex I
Aragón	La ley 5/2002, de 4 de abril, de Caza de Aragón (Aragon hunting law)	article 20 and 47
Asturias	Ley 2/1989, de 6 de junio, de Caza (Hunting law)	article 25 and 46
	Decreto 24/1991, de 7 de febrero, por el que se aprueba el Reglamento de Caza (Hunting regulation decree)	article 49
Balearic Islands	Ley 6/2006 de 12 de abril, balear de caza y pesca fluvial (Balearic hunting and fishing law)	article 33, 37, 73 and 90
Canary Islands	Ley 7/1998, de 6 de julio, de caza de Canarias (Canary Island hunting law)	article 43 and 50
Cantabria	Ley 4/2006, de 19 de mayo, de Conservación de la Naturaleza de Cantabria (Cantabrian nature conservation law)	article 38, 53 85 and 86 Annex VI
	Ley 12/2006, de 17 de julio, de Caza de Cantabria (Cantabrian hunting law)	article 34 and 66
Castilla-La Mancha	Ley 2/1993, de 15 de julio, de caza de Castilla-La Mancha (Castilla-La Mancha hunting law)	article 26, 36, 56 and 86
	Ley 9/1999, de 26 de mayo, de Conservación de la Naturaleza (Nature conservation law)	article 22, 64, 69 bis, 109 and 111
Castilla y León	Ley 4/1996, de 12 de julio, de Caza, de Castilla y León (Castilla y León hunting law)	article 31 and 74
Catalunya	Decreto Legislativo 2/2008, de 15 de abril, por el que se aprueba el Texto refundido de la Ley de protección de los animales (Legislative decree approving the revised text of the animal protection law)	article 5 and 44
Extremadura	Ley 8/1998, de 26 de junio, de Conservación de la Naturaleza y de Espacios Naturales de Extremadura (Extremadura nature site and nature conservation law)	article 66
	Ley 14/2010, de 9 de diciembre, de caza de Extremadura (Extremadura hunting law)	article 35 and 87
Galicia	Ley 4/1997, de 25 de junio, de Caza de Galicia (Galician hunting law)	article 32, 34, 57, 58, 59
	Decreto 284/2001, de 11 de octubre, por el que se aprueba el Reglamento de caza de Galicia (Decree approving the Galician hunting law)	article 32
La Rioja	Ley 9/1998, de 2 de julio, de Caza de La Rioja (La Rioja hunting law)	art.37 and 82
	Decreto 17/2004, de 27 de febrero, por el que se aprueba el Reglamento de Caza de La Rioja (Decree approving La Rioja hunting law)	art.59
Madrid	- (Ley Estatal de Caza de 1970) - (state hunting law of 1970)	-
Murcia	Ley 7/1995, de 21 de abril, de Fauna Silvestre de la Región de Murcia (Murcia regional wildlife law)	article 26, 115 and 119
	Ley 7/2003, de 12 de noviembre, de Caza y Pesca Fluvial de la Región de Murcia (Murcia regional coarse-fishing and hunting law)	article 46, 51 and 100 and 104
Navarra	Ley Foral 2/1993, de 5 de marzo, de Protección y Gestión de la Fauna Silvestre y sus Hábitats (Navarre wildlife and wildlife-habitat protection law)	article 27 and 112
	Ley Foral 17/2005, de 22 de diciembre, de Caza y Pesca de Navarra (Navarre fishing and hunting law)	article 20, 39, 51, 77, 89 and 92
País Vasco	Ley 16/1994, de 30 de junio, de Conservación de la Naturaleza del País Vasco (Basque Country nature conservation law)	article 67 and 76
	Ley 2/2011, de 17 de marzo, de Caza (Hunting law)	Article 34.4, 38.4 and 55.16
Valencia	Ley 13/2004, de 27 de diciembre, de Caza de la Comunidad Valenciana	art.12, 38, 58

Table 5. Regional Legislation on poison use

Analysis of administrative infractions in poison use					
<i>Comunidad Autónoma</i>	Prohibition	Infringement	Gravity	Fine	Accessory penalties
Andalucía	Tenure Use Marketing	Placement	Very serious	€60,101.22 to 300,506.05	Suspension of right to permit and disqualification of right to hunt for a period of from 5 to 10 years
		Failure to communicate appearance thereof	Leve	60,10 a 601,01 €	
Aragón	Use Tenure	Use Tenure	Serious	€300.51 to 3,005.06	Disqualification for hunting; Cancellation of registration of the hunting ground; Suspension of the hunting activity.
Asturias	Use	Use of toxic substances	Very serious	€7,512.66 to 90,151.82	Withdrawal of licence and prohibition of renewing it for 10 years
Baleares	Tenure Use Marketing	Use or allowing others to use it	Very serious	€2,001 to 20,000	Withdrawal of hunting licence and prohibition of renewing it for a period ranging from two to four years; Cancellation of registration of the hunting ground; Forfeiture of quality certificate; Suspension of hunting activity for 2 to 4 years. Suspension of the hunting activity might consist of any of the following: temporary disqualification for marketing wild game; suspension of the administrative hunting-ground resolution and past authorisations and permits; and temporary closure of the site and facilities in the case of hunting farms.
Canarias	Use	Use of bait or substances	Very serious	€3,005.07 to 9,015.18	Withdrawal and revocation of hunting licence and prohibition of renewing it for 3 to 8 years; revocation of registration of the hunting ground or establishment of a temporary hunting ban.
		Poisoning of hunting dogs			
Cantabria	Tenure Use Marketing	Use or tenure	Very serious (Ley 4/2006)	€3,005.07 to 60,101.21	Cancellation of the authorisation of the hunting ground; Suspension of hunting activity in the hunting ground for a time ranging from 1 to 3 years; Forfeiture of the hunting licence and prohibition of renewing it for a period ranging from 1 to 4 years.
		Use	Serious (Ley 12/2006)	€5,000.01 to 200,000.00	Revocation of authorisations granted for various uses and activities in protected nature sites or protected hinterland thereof; closure or temporary suspension of the establishment or activity; prohibition of hunting or fishing for a maximum time of ten years.

Analysis of administrative infractions in poison use						
Comunidad Autónoma	Prohibition	Infringement	Gravity	Fine	Accessory penalties	
Castilla-La Mancha	Tenure Use Marketing	Use; preparation, handling and sale for use	Very serious (Ley 2/1993)	€3,005.07 to 60,101.21	Retrada de la licencia de caza e inhabilitación para obtenerla por un plazo comprendido entre 5 y 10 años. Suspensión de la actividad cinegética (vedado temporal o la anulación del acotado, la inhabilitación temporal para comercializar piezas de caza o la clausura de instalaciones) durante un plazo comprendido entre 5 y 10 años.	
		Failure to communicate the existence of poisoned animals or bait	Serious (Ley 9/1999)	€25,001 to 100,000		
		Omission of surveillance duty				
		Placement or use				
Castilla y León	Prohibition of the method	Use	Very serious	€3,903.88 to 78,077.48	Withdrawal of hunting licence and prohibition of renewing it for a time ranging from 3 to 5 years	
Cataluña	Supplying substances	Supplying substances	Serious	€401 to 2,000		
Extremadura	Use	Use	Very serious (Ley 8/98)	€60,101.22 to 300,506.05	Prohibition of hunting or fishing or holding a licence for up to 10 years	
	Tenure Use Marketing	Tenure Use Marketing	Very serious (Ley 14/2010)	€2,501 to 50,000	Withdrawal of the hunting licence and prohibition of renewing it for 2 to 5 years. If the person responsible for the breach is the tenure holder of a hunting ground he or she will not only be fined but also disqualified from running any other hunting ground for the same period.	
	Tenure Use	Use	Very serious	€6,010.13 to 30,050.61	Withdrawal of the hunting licence and prohibition of renewing it for 5 to 10 years. Suspension of the hunting activity or disqualification from running land subjected to a special hunting scheme for 1 to 5 years.	
Galicia		Possession	Slight	€60.10 to 601.01		
La Rioja	Tenure Use	Tenure Use	Serious	€301 to 3,000	Withdrawal of the hunting licence and prohibition of renewing it for 6 months to 3 years	
Madrid						

Analysis of administrative infractions in poison use						
Comunidad Autónoma	Prohibition	Infringement	Gravity	Fine	Accessory penalties	
Murcia	Tenure Use Marketing	Tenure Use (Ley 7/1995)	Serious	€601.02 to 6.010.12	Forfeiture of licence and disqualification for 1 to 3 years.	
		Preparation, handling and sale for use (Ley 7/2003)	Serious	€300 to 3,005	Withdrawal of the hunting licence and prohibition of renewing it for 1 to 3 years and, where applicable, suspension of hunting and fishing activity for the same period	
Navarra	Tenure Use Marketing	Use Tenure (Ley Foral 2/1993)	Grave	6.010.13 a 60.101,21€		
		Placement (Ley Foral 17/2005)	Muy grave	2001 a 6.000 €	Pérdida de licencia e inhabilitación para obtenerla entre 3 y 5 años; suspensión definitiva de la actividad cinegética en el coto.	
		Tenure Marketing (Ley Foral 17/2005)	Slight	€50 to 500	Suspension of the licence for a period running from 1 month to 1 year	
País Vasco	Tenure Use Marketing	Failure to communicate poisoning events				
		Hunting using poison or poisoned bait	Very serious	€200,001 to 2,000,000		
Valencia	Use	Use	Very serious	€3,001 to 15,000	Withdrawal of the hunting licence and prohibition of renewing it for 2 years and one day to 3 years; suspension or annulment of the hunting activity.	
		Failure to communicate poisoning episodes				

Table 6. Analysis of administration infringements in poison use

As well as the abovementioned administrative legislation some CCAA have approved planning instruments that include goals and means of action for the fight against poison use.

Plans and protocols

Strategies and action plans against illegal poison use		
Government authority	Legislation	Approval date
State	Estrategia nacional contra el uso ilegal de cebos envenenados en el medio natural (National strategy against illegal use of poisoned-baits in the countryside)	23/09/2004
Andalucía	Estrategia para la erradicación del uso ilegal de cebos envenenados en Andalucía (Strategy for eradicating the use of poisoned-baits in Andalusia)	01/12/2004
Aragón	Orden del Departamento de Medio Ambiente, por la que se aprueba el Plan de Acción para la erradicación del uso ilegal de venenos en el medio natural en Aragón (Order of the Environment Department approving the action plan for eradicating illegal poison use in the countryside in Aragón)	08/05/2007
Castilla-La Mancha	Orden de la Consejería de Medio Ambiente, por la que se aprueba el Plan Regional de Lucha contra el Uso Ilegal de Venenos en el Medio Natural (Order of the regional environment ministry approving the regional plan to fight against the illegal use of poison in the countryside)	02/08/2005
Valencia	Instrucción de la Dirección General de medio natural, contra el uso ilegal de veneno en la Comunitat Valenciana. (Instruction of the Directorate General of the natural environment against the illegal use of poison in the region of Valencia)	26/04/2012

Table 7. Strategies and action plans against illegal poison use

The abovementioned state-level and regional legislation serves as a sufficient framework for establishing legal liability for the use of poisoned-baits. Nonetheless, its application calls for political will and provision of the necessary resources for investigating and prosecuting perpetrated crimes and infringements.

The following chapters analyse some of the aspects of the abovementioned state and regional legislation.

Chapter IV

ILLEGAL USE OF POISONED-BAITS AS WILDLIFE CRIME. ARTICLE 336 OF THE SPANISH PENAL CODE

César Estirado de Cabo, Environmental prosecutor of Madrid.

Characteristics of the crime as specified therein

The use of poison as laid down in article 336 of the Spanish Penal Code is a crime of simple activity and “abstract danger” (without calling for actual injury of the legal asset involved). As expressed in some judgements of *Audiencias Provinciales* (provincial courts), while the hunting procedures dealt with in article 334 and 335 are results-orientated, geared as they are towards certain species, the type of hunting as dealt with in article 336 is perpetrated simply by the placement of the bait or other associated wherewithal for hunting purposes without the actual capture thereof being necessary for consummation of the crime. The law hence sets the barrier for penal protection as the moment the protected legal asset is brought into jeopardy (this being in principle the protection of wildlife and, more specifically, a balanced hunting activity, although it is in fact extended to the health and safety of persons), without waiting for effective injury to be caused. Furthermore, since no proximity to any real risk situation is called for, we are therefore dealing with a crime of abstract danger.

The behaviour dealt with by this article of the code is the illegal use of poison for hunting or fishing or the use of explosive resources or other similar wherewithal having a comparable destructive effect on wildlife. This therefore concerns, in short, what have come to be known as “mass-killing” hunting procedures, with the added requisite that they have to have a similar destructive capacity to poison or explosives. This crime has been so specified since its original wording in the Spanish Penal Code of 1995 up to the reform of *Ley Orgánica 5/2010*. These prerequisites and the overarching Spanish criminal-law principles of legality and certainty (*lex certa*: expressed in Spanish as “*taxatividad*”) in theory rule out any analogous or even extensive interpretation of any criminal legal rule; this has led to significant problems in interpretation of the law as specified therein, in terms of whether or not it was applicable to the use of such wherewithal as wire snares. In some judgments the final interpretation has come down to the form and characteristics thereof, their number and placement and actual likeliness of affecting wildlife. Witness the resolutions of the *Audiencia Provincial* of Asturias dated 20-2-00 and 23-6-05, of Tarragona dated 22-2-02, of Huesca dated 11-10-01 and of Huelva dated 25-9-06. An opposite ruling was given by the *Audiencia Provincial* of Cuenca dated 14-5-04. Resources excluded from the scope thereof include spotlights and carbines (*Audiencia Provincial* of Badajoz,

Judgment of 16-11-98), bird hunting nets (Badajoz, 2-11-98 and 19-10-98), electric light (Teruel, 10-11-07) and crossbow-type traps (Tarragona, 8-1-07). The *Audiencia Provincial* of Tarragona had handed down contradictory judgments on the use of lime (electric lure and subsequent use of solvent to free unwanted birds).

A red-letter development here was the reform of *Ley Orgánica 5/2010*, fleshing out the definition of measures with a similar destructive capacity by adding the important alternative expression “*o no selectiva*” (or indiscriminate). Another crucial factor is that the *Ley 42/2007 de Patrimonio Natural y Biodiversidad* lays down in article 62.3 a) the prohibition of all mass-killing and indiscriminate procedures for capturing or killing animals, expressly listing them in Annex VII. For these purposes the 14-10-10 meeting of the Environment Section of the Public Prosecutor’s Office of Madrid (*Sección de Medio Ambiente de la Fiscalía de Madrid*), following in the path of the annual meeting of the Delegated Environmental Prosecutors (*Fiscales Delegados de Medio Ambiente*) at national level, agreed that “the new wording of article 336 should be so construed as to include the use of hunting resources like traps or wire snares, on the grounds that, while they do not have great destructive capacity (unless set in a high number), they are indiscriminate insofar as the perpetrator has no control over the animal or even person that might fall victim to the installed trap.”

Seriousness of the crime. Specific aggravating circumstances

A new specific aggravating circumstance was phased into the Code of 1995, namely when the “damage caused was of *notoria importancia* (notable importance). This aggravating circumstance implies, firstly, that the specified danger should lead to actual damage; this differs from the basic specification as abstract danger, as we have already seen. Secondly, that this damage is of notable importance. I would argue that establishment of this notability would call for an expert report, confirming, for example, that the damage might upset the natural balance of a hunting species in a given area, either due to the number of individuals affected or the particular importance of the species itself. Nonetheless, this aggravating circumstance would not automatically follow from the fact that species involved has been listed as threatened or catalogued as “of special interest”, a situation that would correspond to the crime as specified under article 334 or 335.1, respectively, otherwise this would involve a violation of the prohibition of double punishment for the same event (*ne bis in idem*), since the outcome would serve at once as grounds for the aggravating circumstance and also for the other crime.

Malice aforethought or culpable recklessness

The use of poisoned-baits is a crime that can be committed only as malice aforethought rather than mere culpability or recklessness. As is well known the Code of 1995 introduced a closed system for perpetration of crimes by recklessness, overriding the former open system. Indeed, the Spanish Penal Code of 1973 contained a general enablement of the perpetration of any crime by recklessness, according to certain requisites. The Spanish Penal Code of 1995, on the contrary,

stipulates in article 12 that “reckless actions or omissions will be punished only when expressly provided for by law”. Failing said express provision, therefore, malice aforethought will be a *sine qua non* of the perpetration. In this case no express provision has been made for said reckless perpetration, whereby it follows that it can be committed only by malice aforethought.

Furthermore, it could hardly be otherwise in this case. If the behaviour involved is mere activity, there must be a perceived purpose involved in the crime, namely the use of poison or other defined resources “for hunting or fishing”. It is therefore a case of a preordained specified activity. This specified purpose forms part of the wilful misconduct, which would moreover operate as first-degree direct misconduct and as specific misconduct, presupposing general misconduct involving the wilful and cognisant perpetration of the specified criminal action (e.g. placement of the poisoned-baits), exacerbated by the fact that said action was geared towards capture of given species of animal or particular individuals thereof.

Continuing offence and concurrent offences

I would argue that criminal continuity is unlikely to be appreciated in a crime of this type, given its specification as such. Indeed, as specified, it calls for the use of poison, explosives or given instruments or gear for hunting or fishing. Multiple use of such wherewithal within the same space-time unit would therefore be considered a single, non-continuous crime, given the generic definition of the behaviour involved. This is even truer when the specific aggravating circumstance of causing damage of notable importance is to be invoked, calling as it does for numerous examples of these illegal procedures.

Criminal continuity would be feasibly invokable only in the case of actions clearly separated in space or time, giving rise to behaviour specifiable under different criminal precepts. Only then, if not excessively distanced one from the other and forming part of the same criminal plan, would they meet the requisites of criminal continuity as laid down in article 74 of the Spanish Penal Code.

As for concurrent offences, this might obtain, given that the crime is one of mere activity, whenever the result of this activity can be specified as another crime. This would be particularly feasible if a threatened species is captured (article 334) or a species that cannot be hunted because it has been listed as “of special interest” or is not classed as a huntable species in the *Orden de Caza* (Regional Hunting Order) (article 335.1) or even in the case of poaching (article 335.2). It should however be noted here, first and foremost, that concurrence must exist between these crimes and that the crime of article 336 overrides the special aggravating circumstance of article 335.4, involving the use of forbidden means or gear, due to the principle of *Lex specialis*. Secondly, I would argue that it is clearly a case of concurrent offences and not of legal norms since it involves behaviour that attacks differentiated legal assets. This is so because article 336 protects all wildlife jeopardised by the illicit procedure used in an attempt to capture same. Under the crimes specified in other articles the protected legal asset is limited to the specific individual(s) actually captured. Application under article 336, therefore, does not account for the whole wrongdoing of the action, which may extend further to involve a specific result under

other crimes. In other words, the species jeopardised by the action dealt with under article 336 of the Spanish Penal Code extend beyond the specific individuals captured. This therefore rules out the principle of absorption (greater offence subsuming the lesser offence) or criminal progressivity, which presupposes that the same action imperils a given legal asset and then damages it; this would lead to a concurrence of legal rules, whereby the results-based offence would subsume the peril-based offence. Finally, I believe that we are dealing here with a case of a perpetration of more than one specified crime in the same act (*concurso ideal*), provided for in article 77 of Spanish Penal Code . Indeed, it is a case of single act (placement of poisoned-baits or a wire snare) causing generic danger set forth in article 336, and, furthermore, a result defined in articles 334 or 335. The subsequent capture did not occur due to a new conduct other than that provided for in article 336 but rather due to chance itself, even if this chance-caused result is comprised in the subject's malice aforethought. In short, it is a case of a single act involving different criminal-law precepts.

Penalties and complementary remedial measures

The penalties laid down in the basic specification of the crime in its initial wording of the Spanish Penal Code of 1995 comprised a prison sentence of 6 months to 2 years or 8 to 24 months paying the fine fixed by the judge. Article 337 also provides for the additional penalty of 3 to 8 years disqualification for hunting or fishing activities. After the reform brought in by *Ley Orgánica* 15/2003 the lower imprisonment limit was reduced to 4 months, leaving the upper limit unchanged and the alternative penalty of the fine. The additional hunting or fishing disqualification penalty was also introduced in article 336 itself, with a notably reduced duration of 1 to 3 years. The reform of *Ley Orgánica* 5/2010 left these penalties unchanged. The specified crime with aggravated circumstances has always laid down the prison sentence of the basic specification in the upper half of the range.

Civil liability consisting in repair of the damage caused and compensation for same will normally refer to the effective damage caused to certain game species. It should be remembered here that under Spanish Penal Code the hunting trophies are *res nullius*, thereafter appropriated by the tenure holder of the hunting right. The beneficiary for any compensation paid for lost or damaged game species should therefore be the Regional Environment Ministry holding the nature protection portfolio. Nonetheless, if the events occurred inside a hunting ground, covered by its corresponding hunting plan, duly approved, then it is clear that, even though the tenure holder thereof is not the owner of the game species, he or she does have economic rights deriving from the running of the hunting ground as such. If these rights are impaired, I would therefore argue that said compensation should be paid in his or her favour. There might be cases in which the damage compensation is not limited to the loss of game species but rather recovery thereof if they have not died, or other environmental damage, which would have to be vouched for in each case for entitlement to the restoration thereof. For example, land might be polluted due to remains of the poison, calling for the restoration thereof. In any case, the need of any remedial measure would fit in with article 339 of the Spanish Penal Code, which lays it down that "judges or courts will order the adoption of such measures as may be necessary for restoring the disrupted ecological balance, the perpetrator to defray the costs thereof".

Chapter V

PRACTICAL QUESTIONS POSED BY THE PROVISIONAL CLASSIFICATION OF AN ALLEGED POISONED-BAITS WILDLIFE CRIME.

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If, as analysed in the various chapters hereof, the pre-trial examination is normally a long-winded and complex process, there are also various legal pitfalls and problems in the classification process. The most important ones are the following:

Criminal continuity

The penalties for environmental crimes tend to be low; seldom do they imply effective enforcement of imprisonment, even in the most important cases. This is so, above all, because the convicted parties do not normally have a criminal record. The penalties imposed do not exceed two years of imprisonment and may be relegated to a fine for first offenders in cases with no proven deaths of listed species.

For this very reason it is crucial in the environmental sphere to assess properly all the facts of the case to facilitate an accusation based on continuous crimes, with consequent higher penalties.

Article 74 of the Spanish Penal Code lays it down that *anyone who, in the execution of a pre-conceived plan or taking advantage of the same occasion several times, should carry out multiple actions or omissions affecting one or several persons and infringing the same criminal precept or precepts of an identical or similar nature will be punished as perpetrator of a continuous crime or misdemeanour [wilful or culpable infringement] with the punishment laid down for the most serious infringement, to be enforced in the upper half of the range thereof or the lower half of the range of the penalty of higher degree.*

It follows therefore that a continuing offence calls for multiple punishable actions or omissions infringing the same article of the Spanish Penal Code or other of similar nature. Moreover such infringements have to have been perpetrated as part of a preconceived plan or taking advantage of the same occasion several times. A “preconceived plan” is deemed to exist when an initial intention is developed in successive episodes. “Taking advantage of the same occasion several

times” is deemed to have occurred when the perpetrator repeats acts as the same occasion presents itself successively. In most cases any preconceived plan will have been well identified by the agents dealing with each particular case, insofar as the actions normally correspond to an indiscriminate predator-extermination effort by hunters or livestock farmers, etc. These actions have to be recorded in the report of the alleged offence (*atestado*) on the basis of the data to hand. Taking advantage of the same occasion, within the environmental sphere, will normally refer to the position of authority or guarantor held by the perpetrator, for example due to his or her job as a warden, hunting permit holder, livestock farmer, the availability of certain forbidden means or gear, exploitation of certain times of the year (closed season, livestock birthing period, etc.).

In environmental crimes, therefore, it is not usually a case of singular or isolated acts (one piece of bait, one shot, one capture) but rather a genuine reiteration of actions and even joint or simultaneous use of diverse methods in pursuit of the same end. In the illegal extermination of predators, for example, it is usually a case of various methods used jointly (such as poison in combination with wire snares without measures to reduce the impact thereof, cage traps with live bait).

In any case it is essential to vouch for the following:

- 1) Reiteration over time of the criminal act, proving that the action was kept up over and beyond the first event (for example, proving that there is bait several days old next to very recent bait, established on the basis of the desiccation or putrefaction thereof), or clearance of past carcasses, with a different degree of conservation and replacement of the bait.
- 2) Multiplicity of methods used; it is, for example, common for poisoned-baits to be used in conjunction with illegal wire snares or cage traps, and even authorised methods, all of which call for periodical checking.
- 3) The different spatial location of the action, with necessary travelling in between, thus making it possible for the actions carried out to be separated off from each other.

Establishing a continuing offence in this way facilitates a more serious classification and severer punishment of the successive and repeated perpetration of the criminal act against the same legal asset, which would normally be classified as single crime, when the repeated perpetration thereof in fact reflects a criminal intensity that goes well beyond a unified act. A crime could not be classified as a continuing offence unless it is proved that there was no such unified act, which obtains when the same bodily movements are repeated in a single space and short period of time (*several punches following closely on each other constitute a single crime of bodily harm...) so that an impartial observer would consider them to be the same natural action, it therefore making no sense to divide them up into several criminal acts* (STS [Judgment of the Spanish Supreme Court] 670/01 of 19 April).

In most poisoning cases under article 334 of the Spanish Penal Code criminal continuity does obtain with regard to the protected species insofar as there is indiscriminate fatality of diverse individuals. The most correct classification, therefore, on the above legal grounds, would be for

each of the dead animals killed by poisoned-baits not to be considered in isolation as a single crime.

Concurrent offences

It is also usual for the placement or use of poisoned-baits not to feature as the only criminal act in the provisional classification; it usually goes hand in hand with a crime as specified under article 334 of the Spanish Penal Code (for the death of protected species) or article 335 (death of species that it is forbidden to hunt) and even a crime under article 263 of the *Spanish Penal Code* when it is a case of damage caused to pets like dogs or cats, providing it exceeds the lower threshold value laid down by law, i.e., cases where the poison has achieved its intended purpose.

Given the risk-based nature of article 336 of the Spanish Penal Code, designed to raise the barriers of protection against this crime precisely to forestall the use of this indiscriminate and dangerous practice, it is therefore unnecessary to prove that any animal has been killed as a result. But it is also true that when any type of poisoned animal does turn up, a decision then has to be made in the indictment about the particular formula of concurrent crimes to be opted for.

I would argue here that the most technically correct option would be to indict on the grounds of perpetration of more than one specified crime in the same act (*concurso ideal*) pursuant to the provisions laid down article 77 of the Spanish Penal Code, with the concomitant knock-on criminal implications: 2 ... *application will be made of the penalty provided for the most serious infringement, in the upper half of its range, capped at the sum for penalisation of the infringements separately.* 3. *Whenever the penalty so calculated exceeds this threshold, the infringements will be penalised separately.*

Along these lines runs the judgment of the *Tribunal Supremo* (National Supreme Court) of 12 November 1998, ratified and consolidated thereafter, ruling that a relation of *concurso ideal* will be invoked between risk-based and result-based crimes when the resulting damage has not been consumed among all the possible protected legal assets exposed to the risk. In the case of poisoning crimes the latter condition is practically impossible since there will always be a bigger pool of potentially affected animals than those that have actually been killed. The conviction is therefore always for two crimes, but due consideration should be given to the provisions of article 77 of the Spanish Penal Code when determining the penalty.

I would therefore argue that the activity-based poisoned-bait crime of article 336 of the Spanish Penal Code should not be deemed to have been subsumed in the results-specified crimes that may arise from this action, annulling in practice application thereof or increase of the penalty for concurrence with the ensuing results-specified crimes, given that such species as have actually been killed will never represent the totality of those existing in the affected environment, the risk having meanwhile been posed for others that were unaffected.

Another criteria often invoked in indictments and even in several judgments dictated by inter-party agreement, is that which admits independence of the crime specified under article 336 and results-specified crimes, i.e., factual concurrence whereby a multiplicity of acts are pooled in the same judgment (*concurso real*). In application thereof an accusation for the crimes will be made separately, thence pooling them individually. In support of this thesis it has always been argued that the mere risk-based crime specifies the use of an indiscriminate and mass-killing means like poisoned-baits, without considering whether or not a specific risk has been created for any particular individual. On these grounds any ensuing death or harm would constitute a separate crime from the former risk-based crime, which specifies only the means and not the result.

Subsidiary civil liability

On a purely statistical basis most criminal procedures for the use of poisoned-baits involve alleged material perpetrators who are paid staff of hunting grounds or livestock farms, understanding this term of “paid staff” in the broadest sense of workers, contracted warden services, ad hoc collaborators who nonetheless work on a fairly regular basis and, in the case of companies and associations, members of the board of directors or governing bodies.

In such cases, and in view of the significant civil liabilities that might ensue from the crimes (harm to listed species and nature sites), it is essential for the pre-trial examination phase to establish the labour relationship or dependence or organisational link with the tenure-holding natural person or within the legal person for the purposes of invoking within the procedure the concept of subsidiary civil liability (article 120 of the Spanish Penal Code), enforcing thereon in the due moment court bonds to answer for damage to the environment and remedial measures, otherwise any declared insolvency of the convicted party could completely thwart any reparation of the damage.

In principle this summons poses no great problem and is expressed in the provisional indictments, these being passed on to whosoever might be identified as being liable on a subsidiary basis according to the examination findings. Up to now this has seldom been done, it must be said. But it would certainly be worthwhile in the specific cases where the indicted parties are workers of hunting grounds or livestock farms or members of the governing bodies to forestall thwarting of environmental remedial measures, pursuant to the environment-protection duty and environment-enjoyment right laid down in article 45 of the Spanish Constitution.

This factor has become even more important since the reform of article 339 of the Spanish Penal Code, whereby it is now the judges or courts that are responsible for ordering restoration of the disrupted environment rather than the convicted person. This is conducive to subsidiary civil liability insofar as administrative legislation now traditionally incorporates into hunting and environmental-protection penalising rules the liability of employers vis-à-vis their workers or servants in a broader sense, as part of liability *in eligendo* or *in vigilando*: witness article 22.1 of the Nature Conservation Law of Castilla-La Mancha 9/1999 (*Ley de Conservación de la naturaleza de Castilla la Mancha*), laying it down that “the tenure holders of hunting grounds

are liable on a subsidiary basis for any infringements perpetrated by their employees in their work resulting in the deliberate disturbance, persecution, capture or killing of threatened wildlife". This might help to circumvent the strategy of the true intellectual perpetrators of these crimes, hoping to throw the blame onto their employees, usually unskilled, low-paid workers who are held solely responsible for the action, whereby there is unlikely to be a prison sentence resulting from the case.

In *audiencias provinciales*, dealing with legal persons when members of their governing bodies have been indicted, the overriding criterion seems to be that if the indicted natural person is also a director, empowered agent or legal representative of any type, it suffices for the economic claim to be made clearly against the legal person on condition that the latter has been properly set up. In the best practice, however, care should be taken to ensure that whenever damage has been caused there is due summons of those who might be civilly liable for same on a subsidiary basis for the purposes of dealing with all parts of civil liability under the terms laid down in the Criminal Proceedings Law (*Ley de Enjuiciamiento Criminal*) (article 615 ff LECr.) or in any case to ensure that the indictment is properly worded for the purposes of defence and participation as accusing party. The *audiencia provincial* of Valencia ruled in this sense on 13-10-2011.

Damage repair and civil liability deriving from criminal use of poisoned-baits

This is without doubt a chapter of extraordinary complexity, in which the courts, with a pragmatic outlook, have been dealing with wildlife-death compensation (whether or not the species involved have been listed) in accordance with different administrative scales published in each CCAA. As with the state-level scales used for calculating road-accident injury or death damages, this *modus operandi* gives judges and courts a direct, simple and unquestionably objective yardstick for establishing the direct damage caused by the death of wildlife species. In the cases of pets, expert court evidence is usually called for, a very important factor when the value exceeds four hundred euros (a common occurrence with pedigree races), the result being classified as a deliberate harm or damage done to the property of others (*delito de daños*).

A classic example of the above comes in judgment 150 of 6 June 2013, handed down by the *audiencia provincial* of Jaén, establishing the value of an Iberian Lynx (listed as "In danger of extinction") as €6010.12, according to the administrative scale of the CCAA of *Andalucía* in force at the time of the events, annulling the initial sum of €115,000 sought by the prosecution and set by a judgment of the criminal court (*Juzgado de lo Penal*). This was calculated by dividing the investment effort of the Regional Government of Andalusia and other government authorities spent specifically on lynx conservation by the number of lynxes existing in the CCAA.

Judgment 93/13 of 22 March of the *audiencia provincial* of Zaragoza, which confirms the arguments of the judgment handed down by *Juzgado de lo Penal* 8, endorsing the value calculated on the base of the administrative scale (€33,015.90 for two Bonelli's Eagles, a species listed as "In danger of extinction").

The first conclusion that can be drawn from this situation is the need for the regional environment authority to approve, publish and keep up to date the scale of damages for listed species, as an objective yardstick that is usually referred to when establishing the direct damage caused by poisoning of these species.

In crimes of this type, however, the damage should not be limited to a payment tantamount to the economic value: there is usually a knock-on effect on biodiversity and ecological processes, and the repair concept goes well beyond payment of a simple sum. We should make absolutely sure that all indictments and environmental authorities give courts a documented account of specific environmental repair measures geared towards complete restoration of the affected biological situation. Development of this overall-compensation concept has been very patchy so far from region to region. It should enable the examination courts in the pre-trial stage and the criminal courts in the trial phase to dictate the injunctions and remedial measures as referred to in article 339 of the Spanish Penal Code to prevent further damage to the protected asset or enforce environmental recovery measures on the parties liable for this damage.

This is certainly a field in which (considering too the provisions laid down in article 6 of the Spanish Environmental Liability Law of 26 October 2007) there are overlapping judicial and administrative competences that are not mutually exclusive. This therefore calls for proper liaison between judicial and administrative spheres, which should certainly be prepared from the examination phase onwards. In our view a crucial part is played here by the delegated environment prosecutors.

Nonetheless it is also fairly common for judgments given under article 336 of the Spanish Penal Code to give different identifications of the specific remedial measures in the judgment enforcement phase (judgment 206/2013 of 19 July of criminal court 4 of Pamplona; judgment 141/13 of 17 June of *Juzgado de lo Penal 1* of Don Benito) with the due technical and professional help of the competent authority, or for the government authority to be left to act as it sees fit within its own remit, regardless of the judicial enforcement of the judgment (judgment 275/2012 of 24 September of *Juzgado de lo Penal 5* of Zaragoza).

In either of the two cases care must be taken to ensure that the environmental authority and the courts are singing from the same hymn sheet. It is the government authority that possesses the necessary technical and human resources and specific expertise for permanent advising of the courts but it is likewise bound to dictate administrative precautionary and recovery measures, which in all cases must be communicated to the courts, which may then raise them to the status of injunctions or punitive remedial measures. In doing so, the court will not be trammelled by any limitations imposed by administrative legislation, since the legal proceedings are different in the two cases.

The specific aggravating circumstance of protected nature site

Pursuant to article 338 of the Spanish Penal Code: " *Whenever the behaviour defined hereunder impinges on any protected nature site, the penalties enforced will be one degree higher*". The

aggravating circumstance therefore has a special behaviour deterrent and preventive function vis-à-vis actions likely to impinge on said sites, doing so by the simple expedient of raising penalties by one degree, whereby the maximum penalty is raised to over two years and constitutes sufficient grounds for effective enforcement of a custodial penalty.

What should be understood by *protected nature site*? It would seem *prima facie* to be bound up with one of the “classic” and highest-level protection schemes such as *parque nacional* (Natural Park, highest level run at national level), *parque natural* (Regional Park, run at regional level), nature reserve, in the nomenclature used by historical legislation on this matter.

I would argue, however, that the aggravating circumstance of article 338 of the Spanish Penal Code does not limit application thereof so restrictively. It is designed rather to grant this higher penalisation criterion to those sites that have been given a higher degree of territorial protection by administrative legality, the only authority with the remit for such; furthermore, such sites have to meet the following requisites:

- a) Identity: the physical framework has to be perfectly delineated, in a known and recognisable way.
- b) Publicity: the declaration, ring-fencing and administration scheme of the protected sites must have been publicised to bring it to general notice.
- c) Use and management scheme or constraint of activities. It is not enough for the site to be defined by a mere programmatic decision, general in sense, based on an inventory and otherwise empty of content. It must have a specific protection scheme, constraint on permitted activities, authorisation scheme, etc.

This is how the term is construed, for example, in judgment 449/2008 of 23 October of the *audiencia provincial* of Tarragona, part of which ran as follows: “*Application of the penal rule shall be based on rules passed by the competent authority, which specify the type of protection of any nature site and exhaustively delimit its area and constraints.*” In the end this is nothing more than abidance by the principle that penalties must be lawful.

In the region of Andalucía, the Protected Site Network of Andalusia (*Red de Espacios Protegidos de Andalucía*. RENPA), created in decree 95 of 8 April 2003, lays down with all due publicity requisites the integrated and unified system of all nature sites *located within the CCAA of Andalucía that have a special protection scheme under regional state and Community legislation or international legislation and conventions*, with the possibility that a single physical site may be covered by more than one of the categories.

For penalising purposes a *protected nature site* constitutes more than a mere appearance in inventories, catalogues, collective declarations of protection contained in legislation of all types or simple generic references to habitats or species. There must be a previous formal declaration by the competent authority guaranteeing both the requisite publicity arrangements and knowledge of the contents of the afforded protection. It therefore follows that *protected nature site* can be considered to be all areas that feature in the RENPA. This would in principle meet all prerequi-

sites for penalisation purposes, on condition that the report of the alleged offence be accompanied with due documents vouching for said declaration, management scheme and territorial inclusion of the specific site where the events have occurred or the assets thereof affected by events outside the walls.

The CCAA of Castilla-La Mancha made a similar provision in article 60 of the Nature Conservation Law 9/1999 (*Ley de Conservación de la Naturaleza*), whereby “*Protected nature sites and sensitive zones declared in Castilla -La Mancha have been pooled in the Regional Network of Protected Areas (Red Regional de Áreas Protegidas), to which the provisions laid down herein are applicable.*”

In light of the above I would argue that, for example, in the two aforementioned CCAA, the concept of *protected nature site* would include the longstanding protected sites plus those more recently declared under newer European schemes such as SCI, SPA, SAC (Natura 2000 network), and of course the areas declared to be critical in the recovery plans of species listed as “In danger of extinction” and other areas established under international conventions, with the common requirement in all cases that legal practitioners should vouch for the basic requisites of the publication thereof, its protection scheme and territorial identification. All this data is now more readily accessible by means of the georeferenced systems set up by most environmental authorities.

The Biodiversity and Natural Heritage Law 42 of 13 December 2007 (*Ley de Patrimonio Natural y Biodiversidad*), as the overarching legislation, takes in all the abovementioned examples, laying down in Chapter II (protection of protected nature sites) and III (protected Natura 2000 sites) of Title one the conditions and prerequisites for declaration of each of the various protection schemes. Especially noteworthy is article 41.2 pertaining to the consideration of Natura 2000 sites, establishing that *Sites of Community Interest, Special Areas of Conservation and Special Protection Areas will all be deemed to be protected sites under the umbrella name of Natura 2000 protected site and such scope and limitations as may be laid down by the CCAA within their respective planning arrangements.*

What should be understood by “impinges on” in the first quote of this section? I would argue that there are two possibilities:

- 1) that the criminal act has been perpetrated inside the protected territory, thereby incurring a higher penalty on the grounds that the specified actions occurred in a declared protected territory (territorial basis), and
- 2) even though the criminal acts occurred outside the site’s territorial demarcation, certain adverse consequences have come to light for the assets harboured therein or which are characteristic of said site (contents basis). At the end of the day the territory is home to populations of animals that move around naturally and have no knowledge of administrative boundaries. But it is these animals that have served as a large part of the justification for granting the degree of protection. In these cases due accreditation has to be offered for the existence of said species and due reference made thereto in the justification of the degree of protection, with the inevitable requisite of publicity to guarantee the principle of legal certainty and avoid a prohibited extensive interpretation of the law.

This argument is also defensible, from my point of view, on the grounds of the crime specified in article 330 of the Spanish Penal Code, which lays it down that “*Whosoever, in a protected nature site, should damage any of the assets whereby it has been classified as such, will incur a prison sentence of one to four years and a fine calculated on the basis of twelve to twenty four months*”. The meaning of impinging on a protected nature site as laid down in article 339 would therefore refer to the simple occurrence of the events within its territorial limit or, if occurring outside, the effective impairment of any of the assets present within its territorial limits. Under no circumstances can it be claimed that said effect has to meet the conditions of gravity as called for by article 330 of the Spanish Penal Code. There would therefore be a higher penalty simply on the grounds of the event having occurred within the protected site or, if occurring outside, for having adversely affected any of its component assets.

One example would be death by poisoning of a species listed as “In danger of extinction” such as the Spanish Imperial Eagle, concerning a bird that nests within the territory of a *parque natural* but has been poisoned outside it after eating poisoned-baits in a nearby hunting ground. The assets of the protected site have been affected by actions carried out outside it.

The aggravating circumstance of notable damage of article 336 of the Spanish Penal Code

It is established in said article that *Should the damage caused be of notable importance, the aforementioned prison sentence will be enforced in the upper half of its range*. It is clear that we are dealing here with a risk-based crime so in principle it might seem counterintuitive to establish consequences for the result of the action. I would argue, however, in the interests of the best legislative understanding, that the damage being specifically referred to by this precept is not precisely that which might derive from the capture or killing of animals (hunting and fishing) but rather the collateral damage caused by the means employed, explosives, poison or others of a similar destructive capacity: by way of example, if a string of explosives are used in a river to catch salmon, with the result (whether or not the salmon are caught) that the detonation destroys an important band of river vegetation or alters the structure of the riverbed. The principle of subsumation of the lesser crime by the greater would mean that such damage as may arise from an especially dangerous and destructive method would otherwise go unpunished.

I therefore consider that the notable damage of article 336 has nothing to do with the specific result of using the means for capturing wildlife, the prey that might be obtained, but rather such effects as may derive from its damaging potential, as in the case of poison and explosives, both of great destructive capacity.

It goes beyond our remit here to consider such additional problems as may arise from concurrent deaths of people or the specific imperilment thereof.

Chapter VI

INVESTIGATION IN CASES OF ILLEGAL POISON USE: INVESTIGATION, TECHNIQUES AND PROCEDURE. NEW CHALLENGES, NEW METHODS

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“There’s no such thing as a lost cause, only people without hope”

We have now got used to saying and hearing on all forums that the placement of poison is a crime, meaning that anyone who does so is a criminal and should be made to pay for the damage wreaked on our wildlife. But we have not yet assimilated what this means. According to our legal system crimes have to be investigated by the proper authority, clarified and turned over to the justice system for it to make the requisite ruling. But all crimes? All of them, including those of poisoning, although we have not yet quite taken this fact fully onboard and we still see it as the stuff of TV series or only for crimes involving human victims. We therefore need to draw a line in the sand and understand that police investigation of these illegal acts is not only in order but also a legal obligation, to which all necessary resources have to be dedicated. We should therefore not be surprised by the fact that investigation of the death of an allegedly poisoned Egyptian Vulture involves experts and police officers taking finger prints, DNA samples or any other sample that had hitherto been reserved for crimes considered to be major. Times have changed, and ipso facto our working methods too.

But what does the investigation of a poison-use crime consist of and how is it carried out? This chapter aims to shed some light on the matter.

Unlike most other crimes dealt with by laws, wildlife crimes occur in the countryside. In general they involve poisoning, death of threatened species, poaching and illegal trading. At the moment, as a result of past inertia and inexperience, government authorities still tend to tackle each one separately, independently of the rest.

The use of poisoned-baits is a world in itself, involving a host of diverse situations, motives, compounds, regions, districts, modus operandi, target species, among many other variables of a

local nature. These variables may even in turn have many idiosyncrasies within the same province. By way of analogy, it is like the human spoken language: there are many different languages, which can in turn be broken down into countless dialects or local forms. It is a world in constant evolution and change, a factor that has to be borne firmly in mind when a police investigation is underway.

Illegal poison use is sometimes a one-off event, at a given time and given place, without forming part of a reiterated behaviour pattern. In most cases, unfortunately, it is a habitual, recidivist practice. Moreover, it is also often associated with other illicit behaviour to the same end, i.e. the systematic extermination of non-specialist predators (placement of traps, wire snares, cage traps) especially when tied up with improperly run hunting grounds. It is not unheard-of either for there even to be a certain degree of association, sometimes under legal cover, whereby the use of poisoned-baits is only one of several illegal activities carried out. In some investigations of illegal poison use there has been a serendipitous effect of the most incriminating evidence coming to light within the field of forensic ballistics or others. Neither is it exceptional for an investigation of forest fires or organised poaching to unearth associated use of poison among the suspects.

For all these reasons the number of convictions of poisoners is in fact higher than the official figure of direct judgments for placement of poisoned-baits, since many wrongdoers could not be indicted for this latter crime specifically and had to be charged on other associated crimes. Investigators of poisoning episodes therefore have to be perfectly prepared to investigate the whole set of wildlife crimes and be well-versed in the idiosyncrasies, similarities and differences of each case.

Knowing the enemy; the characteristics of the crime

Criminal investigation of poisoning cases poses a stiff challenge due to its difficulty and complexity. The better we know it, therefore, the higher our chances of success.

The common denominator of most cases is the absence of real or functional witnesses. Other particularities to be taken into account derive from the fact that the events only come to light a time later (sometimes even weeks or months later). They are almost always covered up and are often committed in remote areas of difficult access.

When investigating poisoning cases, moreover, we are operating in alien territory (sometimes completely unknown), whereas the wrongdoers themselves know it like the palm of their hand. They will often have been born in the area and have in-depth knowledge passed down from one generation to another. This all obviously places us at a great disadvantage, which we have to offset with caniness, meticulousness and an impeccably professional approach.

The investigation is constrained by all these idiosyncrasies, making this crime one of the most slippery and hardest to deal with among all those covered by our voluminous Spanish Penal Code. Whenever a conviction is achieved, therefore, due consideration has to be given to the vast amount of work behind it and its exceptional character.

According to the Criminal Procedure Law (*Ley de Enjuiciamiento Criminal*: LECRIM), the responsibility for investigating poison-use crimes falls directly on the corresponding agents in each CCAA within the framework of their respective functional and organic limitations, whether or not they belong to the law enforcement agencies. Here too there are interregional variations. In the specific case of Andalucía, this work is reinforced in the field by the help of highly specialised experts.

All the above may help to explain why there has only been one arrest for every 40 poisoning crimes committed, according to sources of the Guardia Civil, whereas the arrest rate is far higher with other environmental crimes like forest fires, etc. In common crimes committed in built-up areas the long-term arrest ratio is close to 1/1 of the recorded crimes.

In this long-odds working environment it is vital for law-enforcement officers (environment officers and the *Guardia Civil*'s nature-protection service, SEPRONA) to be technically qualified and to work with the necessary resources and tools to help them recognise and identify suspects and direct the investigations and visual examinations towards the desired end. This chapter will give some keys and guidance to help clear up wildlife poisoning episodes.

Investigating the crime

Until very recently only cases in which the accused were surprised *in fragranti* (caught in the act of committing a crime) had any chance of success in criminal proceedings, given the sheer difficulty of coming up with conclusive evidence linking events with the alleged perpetrator. On very few occasions would anyone be caught while actually carrying out the crime. In practice no associated investigation was conducted; the agents' work was limited solely to collecting the carcass without abiding by any established protocol or any thoroughgoingness in the chain-of-custody. In this unfavourable context only one conviction was achieved in Andalucía in 2001 even though the region was at that time immersed in an all-time high of recorded poisoned-baits use.

As has been said elsewhere, the investigation is geared towards providing conclusive answers to the following questions: Who placed the poison? Can the suspect's presence in the site be linked with the moment the crime was carried out. Why was it done? How and why? Was it a one-off event or part of a habitual practice?

At the end of the whole procedure the answers have to be accompanied with the corresponding set of evidence backing up our claims. We should never forget here that it is not ourselves we need to convince but the judiciary, which is who will judge the event. The Spanish Constitution is crystal clear here: the judge is bound to apply the principle of *in dubio pro reo*, meaning that the defendant is always given the benefit of the doubt, so any dubious case will be dropped.

Progress has been made on this score. Witness the fact that Andalucía has now incorporated into its routine procedures policing and forensic investigation techniques applied to this crime; there are now specialist brigades on the ground with specific training for this task.

The immediate upshot has been a sharp increase in the number of convictions brought in, whether in administrative or criminal proceedings, with another clutch of well-directed cases in the pipeline that are likely to increase this number in the future.

More than a decade of past struggles against poisoned-baits use has now shown us that this crime can be effectively combatted, and it is now time to debunk the myth that only those caught *in fraganti* can be convicted. In criminal proceedings the key is a well-run, meticulous and conscientious police investigation carried out unhurriedly by a well-organised multidisciplinary team.

Investigation Phases

The police investigation is divided into three classic phases: On-the-spot visual inspection (ITO in Spanish initials), ensuing investigation and laboratory analysis.

We don't need to get bogged down in details here since the procedure is described in any police protocol manual. What we do need to stress is that the ITO is the key component; the quality of the whole procedure is up to 80% dependent on this pivotal point. Everything we might say here is only the tip of the iceberg and we cannot stress strongly enough that this crucial point calls for our maximum care and attention. Any mistakes here will vitiate the whole procedure thereafter. This inspection therefore has to be carried out by a well-trained and experienced expert.

Defects, errors and reasons for failure in the investigation of poisoning cases

Unfortunately, the clearing up of poisoning cases is no easy task. Quite the contrary, it is a long-winded, tedious process that has nothing to do with facile TV series in which cases are always solved in record time. Reality is very different. Fewer than half of the cases provide sufficient evidence for the judiciary to give its go-ahead to the trial. The most likely outcome, in fact, is that the poisoning episode will never be cleared up, as is shown only too clearly by the figures to hand. At the moment we are beginning to solve episodes that occurred over six years ago. The main pre-requisite, therefore, is **patience** and a cast-iron will power. It is not too far-fetched to conclude that the working teams should be made up only by personnel with the due **motivation**. Time and experience will then do the rest.

Past experience has also shown the main stumbling blocks we need to overcome to carry out our work successfully. A close look at Chart I (modified by M.A. Pacheco, 2009), showing the habitual set of other crimes usually associated with poisoning incidents and Chart II (administrative infringements) gives a good idea of the habitual reasons for failure in the investigation procedure, given the complexity and concurrence of criminal activities.

A sine qua non of a successful outcome is without doubt coordination and liaison among the team members and mutual respect for the duties of each one. The most efficient teams have a disciplinary makeup of members from various government levels and corps. The more cohesive

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Chart I: Crimes habitually committed in concurrence with poisoning
Conspiracy Crime against public health Document forgery Bribery Tax fraud Illegal hunting Illegal tenure of arms Substantial modification of legal weapons
Chart II: Habitual administrative infringements in poisoning-related cases
Illegal tenure of banned wildlife-capture methods Tenure of illegal toxic compounds per se or in illegal circumstances (packaging or labelling) Disturbing, molesting or killing threatened/wild species Breach of territorial surveillance obligations Breach of conditions laid down in technical hunting plans Bearing and using banned wildlife-capture resources Unauthorised possession of wild species Obstructing or resisting agents' inspection work Use of toxic substances Breach of closed seasons and working periods

is the group, therefore, the more successful it is likely to be, and vice versa. There are dozens of cases that have been thwarted by infighting, power struggles and one-upmanship among the team members, even when the particular poisoning case was straightforward and backed up by a wealth of evidence. It goes without saying, therefore, that this drawback of team discrepancies should be avoided at all costs. The overriding objective should be shared by the whole team and this objective is none other than identifying the perpetrator of the act, obtaining solid evidence and bringing it properly to the knowledge of the court. Any straying from this overarching maxim will lead only to the squandering of public funds, failure and frustration. Fortunately, we have more and more examples of excellent work worthy of the highest praise, in which teams of up to thirty members, of different profiles, corps and even countries, worked together with surgical synchrony; the results were astonishing.

These are the so-called general mistakes. There is another type of error known as technical-specific mistakes (colloquially called *syndromes*); these are often fruit of inexperience or lack of attention; they are habitual during the on-the-spot visual inspection.

Police investigation of poisoning crimes is becoming increasingly sophisticated and complex, due mainly to the need of incorporating advanced methods and technologies traditionally used in crimes against people. The longer and more complex the investigation, the more likely are mistakes. Such mistakes, however, are all part of the trial-and-error learning process.

The best way of cutting down faults in the investigation procedure is setting up proper protocols for the ITOs, with well-structured report forms, controlled access of the crime scene only by essential personnel and previous planning of the on-the-spot work.

We should never lose sight of the fact that a simple, error-free investigation is always preferable to a complex, error-strewn one.

The most frequent syndromes can be summed up as follows:

- **Carcass syndrome.** This involves granting too much importance to the carcass, especially if it is a threatened species, leading to a glut of surplus people around it. The opposite syndrome can occur in the case of common or putrefied species with a disagreeable aspect or giving off a strong smell.
- **Clean-sheet syndrome.** An instinctive act when picking up a poisoned carcass to send it to the laboratory is to turn it about and agitate it to shake off the carcass larvae (vulgarly known in Spain as *bicherío* or *gusanera*) and send it off in as clean a state as possible. This eliminates crucial evidence for the laboratory staff in terms of dating the death and carrying out a complete and reliable necropsy.
- **Bait syndrome.** For many good reasons the bait is a crucial element in the police investigation of poisoning episodes. Even we investigators ourselves sometimes underestimate the importance of this, to the point that we sometimes limit ourselves to removing it without more ado. A detailed analysis thereof (whether separately or as part of the whole set placed on the site) could afford vital and conclusive information for dealing with the case comprehensively. The bait is the palimpsest of the criminal's wrongdoing or the language with which he or she communicates with us; we need only to learn to interpret his or her handwriting to gain access to this information. No two baits are identical and there is no single way of placing it.
- **Conditioned reflex syndrome.** This involves shortening the investigation due to preconceived ideas of deadlines, leaving it half done. Any evidence not collected at the proper moment or in the proper form will be lost for good, either due to environmental factors or tampering by the perpetrator.
- **Prejudgments and biases** (cause of death and perpetration). It is all too often the case that we turn up on the spot with preconceived ideas of the perpetration of the crime or the cause of the animal's death (not all animals die from poisoning, or at least directly therefrom). A priori judgments are never good travelling companions.
- **Geographical imprecision.** In areas of reduced extension, or where many closed hunting grounds border on each other, etc, special care should be taken ensure that the crime is attributed to the right land tenure holders and that there is no confusion arising from common borders, errors in the measurement of coordinates or map reading.
- **Imprecisions in the police reports.** The police report is the main evidence, recording the core of the case. Any shortfall therein could undermine the whole procedure thereafter. There are many past examples of this.
- **Wrong carcass dating** (mistaken thanatocronology). It is common practice for us agents and field experts to give our personal opinion on the age of a carcass, duly reflected in our report. This appreciation (generally subjective) might turn out to be right but in other cases it might be belied by laboratory tests based on forensic entomology. Any glaring difference between both assessments is undesirable, so unless we are sure of our ground it is best not to trespass on the rightful domain of forensic diagnosis.

- **Incomplete, deficient or hasty on-the-spot visual inspection.** This section almost speaks for itself. It is clear that the fewer items we record on the spot, the lower our chances of clarifying what happened: who, why and how. The likelihood of a wrong diagnosis also increases in inverse proportion to the amount of information recorded. A frequent error among highly motivated inexperienced people is to fall upon the most striking features immediately upon arriving at the crime scene. We have all made this mistake. At this moment, driven by our enthusiasm we tend to zoom in on the epicentre of events, to the detriment of our peripheral vision. This epicentre is usually the carcass and, to a lesser degree, the bait. Instead of this keyhole vision, we fervently recommend that officers should stop beforehand to take in the whole scene from some distance. After all, unless aided by other forces, the carcass is not going to go anywhere. There is no hurry. We can take time to analyse the whole scene, look around us, try to ascertain possible routes whereby the perpetrator has entered or left the scene, his or her modus operandi and any other factor that may help us to recapitulate events in our mind. This will make it much easier to pinpoint any elements transferred from perpetrator to the environment or vice versa. This unblinkered outlook is priceless.
- **Failure to record the postural clues of the carcass.** The postural clues of the carcass are an open book, again written in its own decipherable language. We only have to learn to read this language and we will learn reams of useful information to flesh out the on-the-spot visual inspection. It will also help us to descry any post-mortem tampering, analyse the compacted soil under the carcass and other essential aspects. We also have to bear in mind that once we have picked up the body and put it in the bag to be sent to the laboratory, all information afforded by the initial posture is forfeited unless we have recorded it properly beforehand.
- **Contamination of samples** (finger prints, DNA). Many samples of huge value have been spoilt because we ourselves have contaminated them by failing to wear gloves, or even wearing the same gloves to handle different samples and intermingling their properties. These mistakes are easily avoidable by means of proper training and abidance by minimum protocols in the field.
- **Contamination of the crime scene,** by means of our own finger prints, residues or any other item that might mistakenly be attributed to a possible transfer by the perpetrator to the crime scene.
- **Wrong sample-taking and -labelling procedure.** This error could invalidate the sample(s) taken during the on-the-spot visual inspection. We should not forget that DNA samples and fingerprint samples have to be sent to the laboratory in different types of containers and kept apart thereafter. The agent must make sure each bait is kept separate from the rest of the samples, each being duly identified.
- **Photograph report absent or wrongly carried out.** Both close-up and panoramic photos have to be presented, without forgetting to use numerated benchmarks or standardised reference scales or at least some sort of makeshift yardstick
- **Poor sample packaging.** Unfortunately a high percentage of samples sent to the laboratory consist of carcasses, often in an advanced state of decomposition. Samples of this type must be frozen before being sent to laboratory to minimise smells and spills, thus preventing the documentation (reports of the visual inspection and chain-of-custody) from being stained and

steeped in the fluids of decomposition. The best practice is to place the sample in a first weatherproof container (bag or PVC tub) and then in a second plastic bag that will be duly sealed. This whole set will then be placed in an airtight outer container, which will also be sealed. Accompanying documentation will be placed in an envelope and attached to the outside of the lid of the outer container during transport to the laboratory.

- **Failure to secure the chain-of-custody and seal the samples.** No further comment is needed here.
- **Fall prey to traps/pitfalls/red herrings.** These are set to throw us off the scent. Perpetrators such as more-or-less professional poachers sometimes go to the most astonishing and unimaginable lengths to mislead us and pull the wool over our eyes. Illegally poached game and illegal toxic products are often hidden away in false gaps in cars. Poisoned carcasses are often placed on roads or near power lines to simulate, respectively, a road accident or electrocution. One of the commonest wiles of poisoners during the on-the-spot inspection is to lead agents towards parts of the hunting ground or animal farm that are far removed from the site where the bait has been set. Meanwhile accomplices will be removing all evidence of the illegal act from the crime scene while the agents' attention has been directed elsewhere. It is therefore essential to spread out the agents in such a way as to ensure surveillance of all the personnel of the site under inspection. Crucially important here is a good command of basic techniques of Nonverbal Communication, which will give agents and field experts invaluable information. We can personally vouch for striking finds of poisoned-baits after many hours of fruitless searching, simply by analysing the gestures and body language of the suspects.
- **Conflicts of competence between enforcement agents (regional vs. nationals).** Although these should never rightfully occur, the sad truth is they do happen throughout the whole country, so we need to deal with them here. Their consequences are always the same: failure of the case under investigation. Conflicts and friction usually arise from conflicts of competence due to the lack of any official protocols. But all problems disappear when everyone is pulling together towards the same goal, i.e., the mutual struggle against this crime and the duty of bringing the perpetrators to book. Even though corporate disputes might have some sort of justification, they have to be dealt with at other levels without ever impinging on day-to-day work.

We can therefore see at a glance that practically all the abovementioned mistakes or faults revolve around the on-the-spot visual inspection, which, as we have already pointed out, is without doubt the most pivotal and delicate phase of any investigation. However competent is the ensuing investigation, however reliable the sample-analysis lab, all their work will come to naught if the underlying investigating system is not solid enough. This point cannot be stressed too strongly.

Investigation Resources

It strays well beyond our remit here to write a treatise on the investigation of illegal acts. In truth there are as many ways of investigating them as there are investigators and varieties of poison,

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and it is not our intention here to spoon-feed the many agents who will have by now built up a wealth of experience in Spain, with many convictions, penalties and solved cases behind them.

What we can do, however, is to give some information on the methods and tools that are proving to be tremendously effective in the fight against poison, used hitherto only to clear up other crimes bearing no relationship to biodiversity.

The first point to stress is that any investigation has to abide by a standardised protocol, designed by the agents and guaranteeing before any court unimpeachable compliance with the provisions laid down by the LECRIM.

The best protocol we would put forward for ensuring a top-quality investigation process would be not so much a list of “do’s” as a list of “don’ts”. Experience has shown that each place, each officer and each poisoned-bait is a world in itself, and no one better than someone on the ground to decide the best procedure in these particular circumstances. Even for the same team it is not the same thing to work on a case of saltmarshes in summer and high mountains in winter; they are two different worlds.

In short, any method is valid on condition that it is based on a solid, standardised protocol, pursues the goal of identifying the perpetrator and locate him or her within the crime scene and avoiding (or at least minimising) the abovementioned mistakes.



The Forensic Support Unit (*Unidad Forense de Apoyo: UFOA*) plays a key role in the investigation of poison in Andalucía. ©EAV.

Police investigation of wildlife crime, including illegal poisoning, cannot therefore be reduced to a one-size-fits-all procedure. It is, on the contrary, a procedure that has to be tailored to each particular case. The components thereof may vary in intensity and order without any fixed rule of thumb, depending rather on the particular circumstances and availability in each case.

Nonetheless there are three main groups of clues or evidence in this section, which we are calling trails (*huellas*). There are thus three investigation trails: the toxicological trail, the forensic trail and the circumstantial-evidence trail.

For this fundamental reason we prefer not to call them methods but investigation resources, which can be summed up as follows:

- **Toxicological analyses.** These are the basis of the toxicological trial on the one hand and also the technical basis underpinning any investigation of a poisoning case. Unfortunately, not all regional authorities (CCAA) run trustworthy toxicological labs, either their own or contracted. Most of the wildlife poisoning cases involve carbamates and, to a lesser degree, organophosphorus compounds, both of them inhibitors of the enzyme acetylcholinesterase. Exact diagnosis of a poisoned-baits or carcass, therefore will call for a direct identification of the compound itself or confirmation that this enzyme has in fact been inhibited after intake of the compound. In many circumstances poisoning episodes do not feature in the official statistics because they are diagnosed on sight without any analysis of compounds or possible cholinesterase inhibition, so any ensuing police investigation will be at least impaired if not completely vitiated. The toxicological analysis can often turn out to be negative even if the animal has in fact died from swallowing poisoned-baits. There are several reasons for this ostensibly surprising result: degradation of the compound if it is not recent; vomiting immediately after intake of the bait and other complex causes of a physiological nature or bound up with the nature of carbamate itself. Nowadays we have managed to overcome this false-negative problem thanks to the forensic trail: postural clues, carcass fauna and circumstantial trails. From a technical point of view, however, analyses of this type should be carried out by forensic scientists with the necessary expertise and training.
- **Forensic entomology.** This is yet another arrow that has only been recently brought into the quiver of poison investigators. Today, fortunately, many regions have now incorporated it into their necropsy reports. It offers a huge forensic value, not only helping to date the death but also giving information on the underlying causes and concomitant circumstances. Obviously this part of the analysis should also be carried out only by highly skilled personnel.
- **Fingerprinting / dermatoglyphics.** There is little to be added here about this widely known technique, which has now also been brought into the poison investigator's toolkit in some specific teams. As a caveat, it should be noted that some procedures, such as access to Spain's Automatic Fingerprint Identification System (*Sistema Automático de Identificación Dactilar*: SAID) sometimes calls for direct participation by the law enforcement agencies, according to the region involved. Although this has given rise to some remit disputes we recommend that this technique be used in close liaison with the forces that habitually include it in their daily working methods or as specified by the judicial police.

- **Forensic ballistics.** Prima facie this may seem in principle to have little to do with the poisoning problem, but for the reasons mentioned at the beginning of this chapter, concerning the various crimes often associated with poisoning, this discipline has often helped to clarify and reinforce police procedures in some important cases. It should obviously be carried out by expert forensic scientists with a certain experience and specific training. By way of example, there have been cases of concurrent crimes in which the poisoned animal showed negative results in the toxicological analyses due to the degradation of the sample. Luckily, however, carcasses that had clearly been shot could serve as evidence to prove a clear and direct intention to kill wildlife in illegal circumstances (SEO-BirdLife is currently bringing a private accusation in an important case of this type). This fundamental tool provides new procedural and evidential elements, to be added to the set of our investigations. It obviously comes into its own, however, in the investigation of organised poaching or firearm shooting of threatened species.
- **Signs of the perpetrator in objects.** In the purest forensic style this classic police criminal-investigation resource has now been successfully used in some cases that led to convictions. It calls, however for great and specific forensic skill. Indeed the conventional judicial police now run instrumental trace-evidence laboratories with specialist personnel and an incalculable professional and human value. Once more, proper liaison and well-knit teams are essential if this tool is to give good results. We should not enter into details here for reasons of forensic prudence. Suffice it to point out, however, that many habitual poisoners (as opposed to ad hoc practitioners) tend to follow well-established and even inherited patterns when concocting a poisoned-bait. Much the same goes for forest fires, where pathological arsonists tend to make up their wicks with an almost liturgical ritual and rejoice in contemplating their work. Both of these factors could play key parts in the investigation. In our particular case the baits, postures and poisoning modus operandi point towards their perpetrator, and if we know how to read the runes it will not be difficult to track him or her down. We should not forget that the poisoner puts all of his or her personal expertise and personality into his or her work (the bait), which can at times reach levels of sophistication that afford crucial clues.
- **DNA studies.** We can safely claim from our particular vantage point that many of the success stories in the investigation of poisoning episodes have been achieved on the strength of this tool, totally inconceivable until very recently. Some teams nowadays process not only individualised DNA of the victims but also of the poisoned-baits and even of the suspects themselves. This is without any doubt one of the resources to hand with the brightest future. Witness the investigation carried out by our team, published in *Quercus* in 2013 (*Cuaderno* 323, January) proving the perpetrator of the poisoning of two Bearded Vulture s, thanks to a DNA study in the Analysis and Diagnosis Centre (*Centro de Análisis y Diagnóstico*) of the poisoned-baits, which turned out to be a piece of sheep carcass. This was then compared with the DNA of the sheep of several suspected shepherds, discovering a coincidence with one of them. Another similar case was conducted in our own laboratory. A person accused of poisoning an Iberian lynx in 2008 was found guilty in 2013 after DNA proof that his own chickens had been used as bait. To our knowledge this is the first ever conviction in Spain for killing a lynx. We had to wait until systematic use of DNA analysis to achieve a lynx-killing conviction in Spain.

- **Postural clues.** The posture taken up by an animal upon dying often gives telltale clues to the cause of death. These insights are often crucial. Poisoning cases in particular usually lead to very clear postural clues if we know how to read the signs. The downside is that they can lead to error if hasty prejudgments are made. Initial appreciations should always be confirmed in the lab by means of the due analyses.
- **Forensic psychology.** This is a thrilling field with the brightest future (already taken up by many working teams). It pools several scientific disciplines (psychological profile, geographical profile, nonverbal communication and forensic analysis of the bait). As well as the well-known aspects of psychological and geographical profiling, attention should also be given to the following:
 - **Nonverbal communication.** This can serve as a tremendous aid in recognition and identification of suspects. It is based on interpretation of the body language of the suspects, who might claim verbally to have had absolutely nothing to do with the poisoning episode, while their non-verbal traits are clearly manifesting their involvement in the incident. The Boston marathon terrorist attacks were cleared up in record time largely thanks to the use of this technique, i.e., analysing the gestures and attitudes of the passers-by caught on security cameras installed on the public thoroughfare. On its own, however, nonverbal communication has no value as evidence, though it can help to guide the investigation in the right direction. In the case of Andalucía, to give one example, the members of the *Unidad Forense de Apoyo* (UFOA) have been specifically trained up in this technique by leading national specialists specially hired for that purpose. Our advice is that this resource should not be taken up unless the agents have the necessary minimum knowledge to use it properly.
 - **Forensic analysis of the bait.** Just as handwriting can betray the hand of the writer, we can safely say the bait is the handwriting of the poisoner. The bait is the language with which the perpetrator communicates with the environment. Correctly tackled, its study can input a huge amount of useful information and probative evidence. This could input priceless information on the number of people who have participated in the crime. In our own experience the technique comes into its own when there have been problems of common borders between properties, in order to ascertain which property the poison came from.
- **Search warrants.** This is without doubt a resource of capital importance, both of enforcement and deterrence. It gives the poisoner the impression that the law is empowered to prosecute the crime to the last degree and final consequences. Actions of this sort have also brought to light sizeable stashes of poison ready for illegal use, sometimes even already used in prepared bait. It goes without saying that the best procedure is that which prevents the poison from being placed in the countryside in the first place, and this principle argues in favour of taking preventive action before the perpetrator goes ahead with the crime, with unforeseeable consequences. There have not been many house-search authorisations granted in Spain to date, but further headway has to be made in this direction.
- **Indoor inspections.** The private home should not be confused with the sort of all-purpose storehouse/outhouse known in Spain as *nave de aperos/caseta de aperos*. It should be borne

in mind here that many of the forbidden resources and other elements unlawfully held are stored in storehouses of this type. They are also ideal sites for finding fingerprints and other fundamental samples that might have evidential worth for the investigator. Their inspection is therefore *de rigueur* in any well-conducted on-the-spot visual inspection.

- **Use of Dog Units (*Unidades Caninas*: UCE).** In the ten years and more since this technique was first taken up in Andalucía in 2003, huge progress has been made in the use and training of sniffer dogs.

Fortunately, many other Spanish regions and countries have now taken it up too. Special mention here must go to the magnificent Cynological Unit of the *Guardia Civil* (*Unidad Cinológica de la Guardia Civil*), which is assisted by an impeccable dog-man team boasting an extraordinary experience and professional prowess. Nonetheless, it must also be pointed out that dog units are often mistakenly thought to be a panacea for the poison problem. Nothing further from the truth. Dogs do not enforce penalties or decide where inspections need to be carried out or draw up reports. They are a powerful tool of deterrence and for removing poison from the countryside but they are not, unfortunately, the definitive solution.

After over ten years of experience, one of our most timely recommendations here is the need for setting up a standardised quality certification system, with each working dog and all would-be intakes being periodically checked on an “MOT” basis. The assessment procedure has to take in the dog itself, its interaction with its guide and also its detection capacity in different environments, sites, poison hidden among clothes and concentration threshold, among other variables.



Dog units are valuable crime prevention and detection resources. © EAV.

- **Phone tapping.** As with house searches, this technique needs to be authorised by the judicial authority; any request therefore needs to be based on sound grounds. We have few records of phone-tapping authorisations having been granted, although the ones granted to date led to convictions, providing as they did a valuable amount of information on various types of crimes in which the suspects were involved. Given the close relationship of this resource and the former one with the habitual work of the *Guardia Civil* or other law-enforcement agencies, it follows that take-up will be easier in the case of teamwork involving agents of varying nature.
- **Vehicle inspections.** Unlike house searches and phone tapping, this does not call for a court order, providing the vehicle involved has not been fitted out as a dwelling. The conventional vehicle of any suspect, therefore, can and should be inspected if deemed fitting during the course of the inspection/investigation. This is a resource of astonishing efficacy and a great dissuasive power. It has by now led to so many excellent results that it has been taken up habitually by some teams. In the case of Andalucía the internal inspection of vehicles is so important and routine, that the dog-unit certification tests involve a particular standardised vehicle-search trial that each dog has to pass before being taken into the team.
- **Ascertainment of the origin of the poison.** Another of the key lines of investigation for linking the poison with the perpetrator is a check of the various registers kept by retail outlets of pesticides, biocides and zoosanitary products and also any ledgers recording the chemical treatment of crop- and animal-farms.
- **Specific specialised training.** This is fundamental, not only because it fills in knowledge loopholes and trains up the personnel properly but also because it represents a very important boost of motivation. Training sessions are also the ideal framework for tackling such matters as liaison and honing working protocols. Training programmes should logically take in all forensic aspects and the investigating and operational factors dealt with in this chapter.

Working capacity and material equipment for investigating the poison

Although each investigator specialising in poison is already cognisant of the matter in hand, whether an environment/forestry officer or member of any law-enforcement force, we can give some guidelines that might help. Although procuring the ideal equipment is a pipedream, not all is lost. As the saying goes “necessity is the mother of invention” and this is no less true in this case. Many colleagues have cobbled together their own makeshift versions of missing equipment, sometimes coming up with results that outperform expensive manufactured products. We ourselves have successfully used the Spanish cocoa product Cola-Cao® as fingerprint-revealing dust, also using the synthetic filaments of bargain-store dusters instead of brushes. We have likewise made portable cyanoacrylate scanners for less than 4 euros, when the factory versions cost about 7000. That said, obviously the best is the enemy of the good’ and we should not fall prey to the Nirvana fallacy. The best policy will always be to equip ourselves whenever possible with top-quality material for reasons of safety and convenience.

Table 8 shows the investigation possibilities, equipment and services currently being used by the teams of the Andalusian Strategy against Poison (*Estrategia Andaluza contra el Veneno: EAV*) and the Diagnosis and Analysis Centre (*Centro de Análisis y Diagnóstico: CAD*).

Chapter VI - Investigation in cases of illegal poison use: investigation, techniques and procedure. New challenges, new methods

CONCEPT/SERVICE	EAV	CAD	Observations
Toxicological analysis	No	Yes	Complete thoroughgoing analysis
Conventional necropsy	No	Yes	Complete thoroughgoing analysis
Specific ballistic report of wildlife injuries	Yes	Yes	On requirement
Human fingerprint scanning, storing and transfer	Yes	Yes	*, **
Human and non-human DNA sample taking	Yes	Yes	Only in important cases
Analysis of gunshot residues (GSR)	Yes	No	Only in important cases
Detection of invisible biological residues (human and non-human fluids and fibres)	Yes	Yes	By means of forensic light and filters
Latent blood detection (luminol technique)	Yes	No	****
Infrared monitoring cameras	Yes	No	*****
Metal detectors	Yes	Yes	For traps and wire snares hidden in the countryside and preliminary in situ diagnosis of death by firearm
Specific expert reports	Yes	Yes	*****
Genetic analysis for forensic studies	No	Yes	

Table 8. Investigation possibilities, equipment and services currently being used by the teams of the Andalusian Strategy against Poison (*Estrategia Andaluza contra el Veneno*: EAV) and the Diagnosis and Analysis Centre (*Centro de Análisis y Diagnóstico*: CAD).

* Not including identification because this is only done through Spain's Automatic Fingerprint Identification System (*Sistema Automático de Identificación Dactilar*: SAID) by judicial police forces (*Guardia Civil* or National Policeforce [*Cuerpo Nacional de Policía*: CNP])

** Including conventional, magnetic, fluorescent, cyanoacrylate and chemical methods (methyl violet).

*** Limited availability. The analyses are conducted on the hands and face of the suspect in cases of unlawful shooting of threatened species or serious poaching cases.

**** Detects latent blood traces in traps, wire snares, ground, cage traps, etc.

***** These infrared cameras are especially designed with undetectable LED flashes.

***** In those cases where technical departments or Conservation Programmes need additional forensic support.

EAV's experts have this resource and have mastered the application techniques, although its use preferably has to be countenanced by law-enforcement forces (SEPRONA) for purely operational reasons and the LECRIM

Table 9 lists the recommended material currently used by Andalusian teams, broken down by levels of basic or advanced.

LIST OF MATERIAL USED AND RECOMMENDED		
Concept	Observations	Level
Labelling and packaging material according to the nature of the samples	Includes paper and plastic bags, glass and plastic flasks, sticky labels, felt-tipped pen,	Basic
Aluminium foil	For poisoned-baits	Basic
GPS		Basic
Camera		Basic
Resistant plastic bags and outer containers for sending samples to the lab		Basic
Numbered seals	Guaranteeing the chain of custody	Basic
Forms for recording removal from the site of samples and carcasses, chain of custody and delivery		Basic
Investigation Manual published by the Regional Council of Andalusia (<i>Junta de Andalucía</i>) for agents		Basic
Rucksacks or toolkits		Basic
Sundry metal and throwaway plastic pegs		Basic
3m measuring tape		Basic
Scoop for collecting earth		Basic
Set of numbered benchmarks and scales		Basic
Throwaway protection overalls and gasmask, nitrile mittens	Equipo básico de protección individual (EPI)	Basic
Forehead LEDs or torches		Basic
Magnifying glass		Basic
Multipurpose pliers		Basic
Gunshot residue (GSR) sample-taking kit	To be used only by law-enforcement forces	Advanced
DNA swab kit	To be used only by law-enforcement forces	Advanced
Digital hygrometer	For dating of the death by studies of carcass fauna	Advanced
Slide Hammer	To be used only by experts	Advanced
Magnetic, fluorescent and non-magnetic fingerprint visualisation reagents		Advanced
Fingerprint visualisation material: magnetic brush, wands, lifter, adhesive, calibrated protection roll		Advanced
Digital calliper		Advanced
Barrier tape		Advanced
GoPro camera		Advanced
Infrared trail camera		Advanced
Forensic light source	Toolkit with complete set of all wavelengths of forensic use and filter goggles	Advanced
Camouflage net for hidden waits		Advanced
Entomological aspirator	For collecting carcass fauna	Advanced
Luminol	Use by experts	Advanced
Metal detector	Regional legislation on the matter has to be taken into account	Advanced

Table 9. List of material used and recommended in the fight against poison.

It should never be forgotten that the use of much of this material calls for specific training and experience and expertise in handling it. We therefore need to stress once more the need for training programmes given by experts in the use of these advanced resources as part of their professional activity. Working in multidisciplinary teams is the best guarantee of taking in the whole clutch of special skills required in the investigation of crimes against biodiversity in the current context. Nowadays there are many professionals who are past masters in each one of these disciplines, working in the country's various judicial police laboratories, and they are ideal candidates for the training needed.

Another aspect to stress is the nature of many of these materials. We always recommend a rational use of these techniques, carried out where possible under the aegis of law enforcement agencies, for the purposes of abiding scrupulously by police investigation procedures and the LECRIM.

Coordination, the most efficient weapon against poison

We could spend hours talking about the worth of investigation resources, about the latest state-of-the-art innovation. But, when it comes to the crunch, there is no shadow of a doubt that the most important attribute is willingness and proper coordination and liaison between all stakeholders in this struggle, whether individuals or members of the law-enforcement agencies or government officers intervening in each case; this should also be extended to people who are



Coordination and liaison between the various stakeholders in this struggle is fundamental in the investigation procedure. © EAV.

not actually intervening but should be. We could spend hours, maybe too many, speaking about all the cases that have been ruined due to lack of coordination between members of the working team.

Police investigation procedures in poisoning cases are tedious and tetchy. Failure, an insurmountable stumbling block, might lie round any corner; the likelihood of failure soars when proper communication is lacking. Down the years we have heard countless sob stories from agents, blaming their failure on a lack of resources when in fact it stemmed from a lack of communication. We have also heard countless complaints about inequalities in equipment and procedures between different corps. But we can safely say that, even if we have the most complete and modern equipment on the market, even if we have perfectly mastered all techniques of fingerprinting, ballistics and boast the most expert nose for sniffing out the most slippery suspects, all this will come to naught if we are incapable of coming to an agreement with our colleagues in the struggle. In our humble view, most equipment shortfalls and lacks can be overcome if we are all pulling together towards a common goal. The daily fight against poisoned-baits does not hit the headlines or win awards. It involves hard, disagreeable work that does not lend itself to frequent celebrations; rather the opposite. The best news is often no news, since nearly all the news that does break is bad.

For this very reason no one is superfluous in the fight against poison; the more brought into the fold, the better. The key words are motivation and common sense. To put it in a nutshell: the more people working on the case and the better coordinated they are, the less poison there will be in the countryside.

Success is measured not by where we are but by where we are headed

Practical Case I: Clarification by means of new technologies

Halophilic bacteria and physico-chemical parameters of the poisoned-baits as conclusive evidence in penal incrimination

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Until very recently investigation of poisoning cases was practically non-existent. On the very few occasions when any sort of investigation was tackled, it was very rudimentary. Nowadays, the desire to wipe out this crime by means of criminal proceedings and the greater availability of human and material resources to call on mean we can set our sights at levels that were un-

thinkable in the past. The real case described herein shows the current efficacy of the new technologies and advanced scientific methods when called up for the fight against poisoned-baits.

Back story

In April 2012 several warnings were received about the appearance of poisoned-baits and affected wildlife carcasses in a hunting ground, located in an area with a long history of illegal poison use in the province of Sevilla. A routine joint inspection of the site was made, involving experts of the Regional Environment Delegation (*Delegación Territorial de Medio Ambiente*), experts from the *Estrategia Andaluza de Veneno* (EAV) and environment officers and agents from the *Guardia Civil's* Nature Protection Service, SEPRONA, helped out by the Specialised Dog Unit (*Unidad Canina Especializada*).

Following established procedure, an inspection was made of the hunting ground, the storehouse/outhouse (*caseta de aperos*) as well as the suspect's vehicle. The inspection methods were those described in this chapter of this book, being particularly careful not to commit the mistakes explained herein.

Initial inquiries suggested that the hunting-ground manager might be responsible for the crime, so special attention was paid to the facilities used by this person in particular. The inside of the vehicle was meticulously checked by three experts, two officers and the dog unit, finding an empty packet of tobacco of a known brand and screwed up in a characteristic way, a cage with remains of bird food and a sack containing steel wire like the type traditionally used for making wire snares for wild boars and maize grain, habitually used for baiting wild-boar feeding stations.

Hard by the parked vehicle stood a storehouse/outhouse, which may also have been classifiable as a living quarters, so the *Guardia Civil* officers decided to ask the judge in person and urgently for the requisite search warrant. This being conceded on the spot, they proceeded to search the outhouse-cum-living quarter with the help of the dog unit.

No trace of poison was found, not the ideal outcome in terms of the chances of any criminal investigation prospering. One suspicious item that did come to light, however, was a bag with sardines, with a characteristic aspect.

At the same time an inspection was made of the hunting ground, finds including several items of poisoned-baits, a cage trap and several dead foxes trapped in wire snares for predators. Around most of the baits the investigators also found dog-ends of the same brand of tobacco found inside the car and, very close to one of the baits, another packet of the same brand of coarse tobacco, empty and screwed up in the same way as the packet of the same brand found inside the car. Carcasses of two Egyptian mongooses and a fieldmouse were also found.

The baits withdrawn from the site comprised chicken remains and carcasses and, surprise, surprise, several sardines identical to the ones found inside the storehouse frequented by the manager. All the baits found by the Dog Unit contained black pellets compatible with aldicarb in appearance; this was subsequently confirmed by the toxicological analysis conducted in the

Centro de Análisis y Diagnóstico (CAD). It goes without saying that all this evidence, baits, clues, etc., was gathered in with absolute guarantee of the chain-of-custody by the law-enforcement officers, following the protocols laid down in this CCAA. The role played by all intervening forces was impeccable.

For certain operational reasons it was not possible to conduct fingerprinting or DNA tests on the fag-ends or packets of tobacco, to provide conclusive evidence. Neither was any poison found in possession of the suspect or in his belongings and facilities (vehicle and storehouse). Prima facie all this would work against the investigation and trial prospects of the case, especially when the public prosecutor, along these lines, opined that the mere coincidence of fag-ends and tobacco around the baits and in the car, and the identical way of screwing up the tobacco packet was not enough reason for the suspect to be indicted. Neither did the find of sardines set as poisoned-baits and identical foodstuff among the belongings of the suspect, withdrawn from the storehouse, offer sufficient guarantees; such a find could be pure coincidence, without offering the procedural guarantees laid down by Spain's Constitution of 1978.

When judge and public prosecutor were questioned, both argued that only a firm and objective link showing that the sardines set as poisoned-baits in the field and those stored by the suspect came from the same purchase batch could be deemed to be sufficient incriminatory evidence. In the hypothetical case that this fundamental proof be obtained, it would then be considered an irrefutable set in combination with all the rest of the circumstantial evidence.

At this point the investigation seemed to be going nowhere and doomed to be shelved as a criminal case. Nonetheless the working team asked CAD to look into and harness all analytical possibilities currently provided by science to try to establish a conclusive link between both groups of sardines, proving that both of them came from the same purchase batch. The challenge thus posed would not be met with a simple toxicological analysis or forensic examination. New ground had to be broken, hitherto unexplored in the investigation of poisoning cases.

CAD concluded from its investigations that the likelihood of any positive outcome was low. The only possible way forward would be to analyse the population of bacteria on the surface of the sardines (responsible for the typical colouration that appears on sardines-herrings), unique in each manufacturing batch, plus other physico-chemical parameters contained in the skin of both groups of sardines. Should exclusive coincidences in said parameters be found between both groups of sardines, the police and procedural case would be considered to be resolved. All this was as yet still theory, however. There was no past experience to go on in terms of this specific methodology.

Although the cost of this analysis was considerable, it still fell far short of the annual sum spent by the Regional Environment Ministry (*Consejería de Medio Ambiente*) in tackling the reiterated poisoning episodes in this particular part of Sevilla. Should this case turn out to be successful, therefore, and hit the headlines, it could even save money in the future due to the deterrent effect and the resulting reduction in poison use in the area, not to mention the knock-on benefits for the environment. The short-term outlay, therefore, albeit large, might pay for itself in the future by cutting down the number of investigations needing to be carried out. Furthermore, in the event of a conviction the defendant would have to pay all analytical costs, with the consequent saving for the anti-poison team. On the basis of all these considerations the Environment

Management Directorate General (*Dirección General de Gestión del Medio Natural*) decided to go ahead with the analysis of the samples and try to carry the case through to a successful conclusion, always with the direct involvement of SEPRONA of the *Guardia Civil* and the experts of the Provincial Delegation (*Delegación Provincial*) of the *Consejería* in Sevilla.

This small chapter recounts what was done from that moment on and how events panned out afterwards.

Methods and analyses carried out

The sardines found in the field used as poisoned-baits and those found in the storehouse were meticulously examined. For comparative analytical purposes other similar batches of sardines were bought (known as “*sardinas-arenques*” [herring-sardines]) in two different shops of the city of Málaga.

The analyses conducted and methods used can be summed up as follows:

- Macroscopic and biometric study, detailing the external aspect, weight and length both of the sardines taken from the site (groups 1 and 2, images 8 and 9) and the shop-bought controls (groups A and B, images 10 and 11).
- Toxicological analysis by liquid and gas chromatography-mass spectrometry (GC-MS/MS; UPLC-MS/MS) on the sardines taken from the site (groups 1 and 2).
- Physico-chemical and microbiological analysis: Presence and concentration of halophilic bacteria (responsible for surface colouration in canned fish of this type) by means of microbiological methods, fat content (acid hydrolysis and Soxhlet), protein content (Kjeldahl method) and other organoleptic parameters such as the degree of humidity and concentration of sodium (potentiometry). These values would be similar in the same batch of sardines (similar processing), so it was regarded as a viable method for correlating the possibly poisoned sardines with those taken from the storehouse. The shop-bought sardines were also analysed as controls (groups A and B).

Results and Discussion

Toxicological analysis

Although all the sardines found on the site were analysed (groups 1 and 2), only those of group 2 containing the black pellets were found to contain aldicarb (386.2 mg/kg) and its degradation products, aldicarb sulfoxide (994.4 mg/kg), and aldicarb sulfone (131.5 mg/kg) (Table 1).

Macroscopic, biometric study and physico-chemical characteristics

No significant weight and size differences were observed between the three groups of sardines (hunting ground, storehouse and shop-bought) (Table 10). There was, however, a notably similar

aspect of the two groups of hunting-ground sardines, differing from those bought in the two shops of Málaga (groups 1, 2, A and B; images 8, 9, 10 and 11).

The sardines of group 1 (taken from the storehouse), and group 2 (in the field with aldicarb) had similar values in terms of protein content (44.1% and 40%), fatty matter (28.4% and 28.6%) and fat/protein ratio (0.64 and 0.71). These values were different from those of the sardines used as control (31.5% protein, 35.7% of fatty matter and a fat/protein ratio of 1.13). Another notable finding is that the content of sodium chloride (ClNa) and humidity found in group 2 differ from the other groups. This could be explained by the handling of the sardines in the field to add the poison (aldicarb), leading to partial desalination, or possible desiccation due to sun exposure or the dry environment it was left in (Table 10).

Quantification of halophilic microorganisms

Results were assessed in light of official criteria for determining the concentration of these bacteria as the basis of perceptible product deterioration: 10^6 CFU/g (10 million bacteria /g). In groups 1 and 2, sardines taken from the site, the values were way above the reference value (1 million); in the control group, on the other hand, the value was well below this threshold (Table 1).

Conclusions

This practical case represents one of the stiffest challenges we have taken on in recent years; it is a clear example of the efficacy of today's technological resources that can now be used in the conservation of biodiversity.

As requested by judge and prosecutor, science proved capable of establishing the crucial link between the sardines used as poisoned-baits and those taken from the suspect's storehouse, proving that both came from the same purchase batch. In other words the sardines used as poisoned-baits came from the same tin as those found among the suspect's belongings inside the storehouse. The presented analyses have been accepted by the court as crucial evidence in the investigated case. This evidence, together with the rest of the circumstantial evidence, enabled the prosecution to show that the suspect was heavily involved in the placement of poisoned-baits in the countryside, doing so intentionally.

If the agents had found aldicarb during the search of the suspect's storehouse, the detailed analysis of the sardines would not have been necessary. In default of this proof, however, the sardines proved to be crucial evidence in this case. No two cases are the same.

As far as we know this is the first time that the presence of bacteria and the assessment of the physico-chemical parameters of baits from a forensic point of view have been used to solve a wildlife poisoning case.

At the moment of writing the suspect has been formally arrested and indicted for the crime of placing poisoned-baits and the use of other illegal wildlife-capturing resources, resulting in the death of the captured animals. The ensuing investigation also disclosed other alleged crimes associated with unlawful hunting practices, which we have not mentioned here for operational reasons and due to the *sub iudice* rule. The case has now been taken to court, thanks to all this spadework by the multidisciplinary teams and the evidence then presented to the judicial authority.

This case has enabled us to add one more arrow to the burgeoning quiver of methods for dealing with similar cases in this CCAA.

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ISO 8968-3:2004: Determination of nitrogen content.

IDF20-3:2004: Block-digestion method.

Table 10. Results from analyses of groups of sardines taken from the site (group 1 storehouse and group 2 countryside) and shop-bought controls (groups A and B).

	Toxicology	Biometric data		Physico-chemical analysis					Microbiology
	Analysis of pesticides	Weight (g) (mean group value)	Length (cm) (mean group value)	Protein content %	Fat content %	Fat/protein ratio	Sodium chloride %	Humidity	Halophilic bacteria (CFU/g)
Group 1-Storehouse sardines	Aldicarb (386.2 mg/kg). aldicarb sulfoxide (994.4 mg/kg). aldicarb sulfone (131.5 mg/kg).	62	17	40,0	28,6	0,71	25,5	46,7	15.5 million (1.5 x107)
Group 2-Sardines doped with aldicarb	Negative	44	16	44,1	28,4	0,64	16,9	37,3	2.3 million (2.3 x106)
Group a-Control sardines	Not analysed	70	17	31,5	35,7	1,13	24,2	41,1	
Group b- Control sardines	Not analysed	68	17	*	*	*	*	*	

*: Analysis not carried out after obtaining conclusive data from the analysis of control group “a”.

Practical Case II: Clarification by means of new technologies

Detection of poison in non-conventional analytical samples as an emergency forensic resource: detection of an organophosphate insecticide in the palate of a Cinereous Vulture in an advanced state of decomposition and use of genetics to identify poisoned-baits

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Genetic samples can also provide evidence in cases of illegal poison use. © CAD.

The normal procedure in any poisoning episode is for the investigating officers to remove the carcass and poisoned-baits from the spot and send to the lab for analysis. Once there, the lab technicians will centre their work on extracting conventional samples from the digestive tract in search of toxic residues that prove the existence of poison. But theory is one thing; it often turns out very differently in practice. On a great number of occasions the results are negative even though the animal is known for sure to have died from poison.

There are many factors working against us and throwing up false negatives that can ruin the prosecution case and therefore let the poisoners off the hook. Some of the components used to poison wildlife work extremely quickly, even killing the animal before the compound reaches the digestive tract. In other cases the animal expels almost all the poison by vomiting, leaving only tiny traces inside. In a huge percentage of occasions, too, the toxins themselves break down and disappear. All these circumstances can give rise to false negatives and lead to huge frustration when the police investigation is thrown out on lack of evidence.

In this practical case we describe some extremely useful emergency resources, helping to improve the odds of detecting poison in an animal that has died from toxin intake. At the same time we show how the use of genetic techniques affords important information for clearing up poisoning episodes.

Backstory

In the time running from the act of swallowing the poison to the finding of the carcass all such conventional analytical samples as soft tissue, stomach contents and fluids may break down to such an extent as to disappear for the purposes of routine toxicological analysis. For this reason, besides conventional detection of residues in tissues, it is important to look into the possibility of detecting residues in other parts of the carcass that are more resistant to degradation. In our experience it might even be necessary to analyse samples that on many occasions are not removed from the site or sent off for analysis because they are thought to be unimportant. As already pointed out, death usually follows very quickly after intake of poisons of acute toxicity, so quickly that conventional tissue analyses might well show no poison exposure at all (Mineau & al. 2011).

When poisoned-bait is swallowed, the animal involved will have previously manipulated it before introducing it into its oral cavity. By virtue of the same Locard's exchange principle that applies to criminal investigations, the poison comes into contact with many parts of the body besides the digestive system during the process as a whole. In these other body areas the degradation speed may well be slower than inside the digestive system. By way of example, we have found poison on the talons of a vulture from grasping the bait, in the gape flange of birds and even on the snout of a fox. The literature on this subject also gives clear examples, citing the talons of an owl or the beaks and talons of African vultures (Vyas & al. 2003 and 2005, Otieno & al. 2010; Otieno & al. 2011).

Forensic biology helped us to clear up an important and very similar incident. Not too long ago a fox died with obvious poisoning symptoms in a protected Andalusian site. If the criminal proceedings were to have any chance of prospering it was essential to secure a positive toxicological result, as required by the public prosecutor. In the first instance, however, the fox carcass gave a negative result. It was then decided to analyse alternative tissues, but likewise with a negative result. An analysis was then made of supposedly poisoned-baits picked up by officers on the crime scene, all with an identical result. Finally, an analysis was made of the vomit, once more with a negative result. It was obvious that these false negatives were the result of environ-

mental degradation, so one last-ditch effort was made. The investigation team went back to the exact point where the fox carcass had originally been found and, following the laboratory's instructions, dug into the surface earth where the fox had vomited while agonising. The digging went just deep enough to get to earth that had not subsequently been affected by temperature and the degrading effect of sunlight and this was taken back to the lab for analysis. At last a positive result was obtained, unlocking the previously stalemated case. Poisoning episodes have now ceased in this area, hitherto one of Andalucía's poisoning black spots.

In this particular case we present the analysis of another part of the carcass that had not formerly been explored in these incidents, namely the palate. The police investigation in question involved a case of mass fatality in Huelva. In March 2012 a reserve warden in the nature spot called *Paraje Natural de Sierra Pelada y Rivera del Aserrador* found a very degraded carcass of a Cinereous Vulture (*Aegypius monachus*) and 9 Griffon Vultures (*Gyps fulvus*) in a traditional vulture feeding station. The carcasses lay between 5 and 15 metres from the remains of a dead horse scavenged by vultures. First suspicions therefore fell on this horse carcass as the source of the poisoning event. All the vulture carcasses showed clear signs of death from poisoning.

The 10 dead vultures and remains of skin, tendons and skeleton of the horse were sent for analysis and study to the *Centro de Análisis y Diagnóstico de la Fauna Silvestre* (CAD), Andalusia's benchmark wildlife laboratory of the Regional Ministry of Agriculture, Fishery and Environment (*Consejería de Agricultura, Pesca y Medioambiente*) in Málaga.

From the standpoint of criminal proceedings it was essential to obtain a positive result from the Cinereous Vulture carcass, given its conservation status. This was regarded beforehand as an extremely difficult task due to its advanced state of degradation.

Analysis of the palate of the Cinereous Vulture carried out in the last instance proved to be crucial in relation to the body of evidence as a whole. This was the first time that an analysis had been made of the palate in search of traces of poison during a related forensic investigation.

How the analysis was carried out (methods)

Retrieval of the carcasses, necropsy and dating of the death

The carcasses of the 9 Griffon Vultures and the Cinereous Vulture plus the remains of the horse (skin, muscle, tendons and ribs) were collected by an officer following the established protocol (Ruiz & al. 2010a, 2010b; Fajardo & al. 2011) and sent to the CAD. A necropsy was conducted on all the vultures, decomposition state permitting, this state varying between individuals from moderate to advanced. Where possible, an estimate was made of the date of death on the basis of carcass entomofauna (see Fernández Verón, 2011).

Toxicological analysis

The horse carcass had been totally consumed by the vultures, making it impossible to ascertain by toxicological analysis whether it had been the cause of death of the vultures.

At the same time some samples of a better quality were taken from two of the Griffon Vultures and the Cinereous Vulture for analysis of organophosphate pesticides and carbamates. Extraction of residues and screening was carried out according to Zoun & Spierenburg (1989), the standard procedure in poisoning cases: between 5-10 grams of material from the Griffon Vultures' digestive tract (inside of the oral cavity and mouth, proventriculus and stomach) and from the indistinguishable mummified organs of the Cinereous Vulture were diluted in a solution of sodium sulphate, followed by solid-phase purification extraction with dichloromethane (C18 columns). Aliquots of the extracts were then used for analysis by thin layer chromatography followed by liquid and gas chromatography mass spectrometry (GC-MS/MS and ULPC-MS/MS), in accordance with European Commission Decision 2002/657/EC.

A scan was made for a total of 131 pesticides of organophosphate carbamate type, the most likely to be used for poisoned-baits in this part of Spain.

The results are shown in Table 11.

Genetic analysis

The assumed poisoned-bait found in the digestive track of one of the Griffon Vultures was subjected to a genetic analysis to find out its nature. DNA analysis was also carried out to ascertain if the vultures had been poisoned by meat from the dead horse. The method used in both cases was based on D-loop gene sequencing.

Results

Necropsy and dating of the death

A study of the insects on the carcasses of the Griffon Vultures enabled us to date the death of vulture No. 1 to between 3 and 6 days and for vulture No 2 between 15 and 20 days. Absence of insects on the carcass of the Cinereous Vulture prevented us from dating its death.

Toxicological analysis

The toxicological results of the Griffon Vultures were positive, showing up chlorfenvinphos, an organophosphate that is enormously dangerous to vultures and often used to poison scavengers (see Table 11 and chromatograms).

Unfortunately, and as was only to be expected from its degradation, the samples of Cinereous Vulture turned out negative for all toxic compounds tested. Nonetheless, according the postural clues and other indications, this was clearly a false negative. Under these circumstances the odds of success in any criminal proceedings were very long. It was therefore necessary to come up with a plan B to explore all possibilities to hand to obtain a positive result on this vulture. Driven by necessity, the working team tried to imagine how a Cinereous Vulture would feed at carrion, deducing which parts of the animal's body might have come into contact at one moment or

another with the toxin supposedly contained in poisoned-baits. After this reflexion a thorough-going analysis was made of alternative samples, on an emergency basis: talons, outer part of the beak and other parts of the body, all with a negative result. In the end, on the point of throwing in the towel and without much hope, the team decided to analyse the palate, on the outside chance that its papillae might still contain toxic residues trapped in their internal face. The papillae point towards the inside of the oesophagus to favour swallowing, so they might in some way have retained traces of toxin due to the swallowing action.

At last, within the palate papillae, the results were positive. Furthermore, surprisingly high contents of chlorfenvinphos were also found (Table 11).

Genetic Analysis

The poisoned meat swallowed by Griffon Vulture No.1 coincided 99% with horse *Equus caballus*. At least this vulture, therefore, had died poisoned after eating horsemeat or feeding from its carcass. But a comparison of the DNA sequences of the particular horse found in the vicinity of the area where the 10 vultures had appeared showed that the two samples did not tally. In other words Griffon Vulture 1 had died after eating horsemeat steeped in chlorfenvinphos, but not from the same horse found a few metres away.

Table 11. Chlorfenvinphos residues detected in selected samples of degraded vulture carcasses in the south of Spain.

	Type of sample	Level of residue (mg/kg)
Cinereous Vulture	Palate ^a	3.39
Cinereous Vulture	Conventional digestive organs	0
₁ Griffon Vulture 1	Content of the oral cavity	2.49
₁ Griffon Vulture 1	Content of the proventriculus and gizzard: ingested bait identified as horse (<i>Equus caballus</i>)	0.70
₂ Griffon Vulture 2	Content of the oral cavity	0.45

^a See Figures 1a-1f

Conclusions

Prima facie the initial working hypothesis was that the horse lying alongside the vulture carcasses was the source of poison leading to the multiple deaths of Griffon Vultures and a Cinereous Vulture inside the protected site. This was the obvious conclusion to make. In our opinion, however, it is always an important investigating principle to keep an open mind and look beyond the obvious. In this case a careful examination of the circumstantial forensic evidence, subsequently borne out by the toxicological and genetic analyses, showed the real situation to be very different. Once more, we wish to stress here the importance of technology and painstaking study from a forensic viewpoint to clear up poisoning episodes.

The genetic analyses were vital in showing that the vulture-poisoning bait did indeed correspond to horsemeat but not from the horse found alongside the dead vultures in the vulture-feeding station, as seemed to be obvious at first sight. The vultures had ingested the poison elsewhere and died in the vulture-feeding station after coming in to roost there. This finding gave rise to a new line of police investigation to find out the real site where the vultures ate the poisoned-baits.

This case is important in revealing the usefulness of non-conventional samples for toxicological analyses in emergency cases, when the habitual tissues often throw up false negatives. It is then when we need to turn to tissues that *prima facie* lack all forensic interest but may in fact turn out to provide crucial insights for clearing up the case. Since that time our working team has been investigating other possibilities of alternative tissues, their usefulness varying depending on whether the cases concern birds or mammals.

As a result of all the above, this poisoning case has now been cleared up from a police and forensic point of view. At the moment of writing, the investigation has led to the indictment of four individuals on the count of placing poison and to the dismantling of a distribution network of the toxic compound, now withdrawn from the legal market. The case is still *sub iudice* so no more details can be given at present.

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Chapter VII

EVIDENCE-TAKING IN POISON-BASED PROCEDURES: THE TOXICOLOGICAL ANALYSIS

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“Reality is merely an illusion, albeit a very persistent one”. **Albert Einstein.**

Introduction

In this chapter we will try to explain how proper collaboration and liaison between environmental law-enforcement officers and technical experts can radically change the approach towards a specific event, with vital consequences. It has often been said that we tread a fine line between criminal and administrative procedures and the simple recounting of facts. Hence the importance of technical reports when dealing with wildlife crimes, especially toxicological analyses. On many occasions this spadework will dictate the subsequent classification of the events.

We can safely claim without any fear of error that, in the fight against countryside illegal poison use, the crucial step is the toxicological analysis of baits and carcasses. Fortunately, applied techniques such as forensic studies, entomology, nonverbal communication or even criminal profiles can throw up a host of clues to any particular case, but the truth is that we could do nothing without the scientific evidence provided by the joint report of the necropsy and the toxicological study

Brief notes on the concept of evidence

It goes beyond the remit of this chapter to delve deeply into evidence as a concept³, but we do wish to give a nutshell, introductory account.

Colloquially we often use the word “evidence” when we are in fact referring to mere clues, traces or potential or indicative evidence with as yet no real probatory force. In any criminal proceedings, however, no clue, indication, report or testimony will be regarded as real evidence

3. The uninitiated would find the following book a great help here: García Borrego, J.A. and Fernández Villazala, T. Introducción al Derecho Procesal Penal. 2007. Editorial Dykinson

until submitted in the court hearing to the principals of: *inmediación* (immediacy), *contradicción* (adversarial proceedings), *igualdad* (even-handedness) and *publicidad* (publicity).

All this comes into its own when eye witnesses and expert witnesses are dealing with ratification of past statements and actions in the court hearing. A sine qua non is strict observance throughout the whole process of the formalities already dealt with in previous chapters⁴ and that all means used have been lawful⁵, otherwise the whole subsequent process will be invalidated.

We should never lose sight of the fact that the burden of proof for overriding the defendant's constitutional right to the assumption of innocence⁶ falls on the prosecuting party (*Fiscalía* [Public prosecutor's office], *acusación particular* [private prosecution] or *acusación popular* [private prosecution brought by a citizen with no direct interest in the case], all of which will depend on the investigation carried out beforehand. Mere suspicion or hearsay is not enough⁷.

Finally, we will touch on the following evidence-related concepts in Spanish law:

- *Prueba de cargo* (Incriminating evidence): This is evidence that, abiding by all the above-mentioned requisites, overrides on its own the constitutional assumption of innocence.
- *Prueba anticipada / Prueba preconstituida*: (Pre-trial evidence or pre-constituted evidence). This is any evidence that, due to the very nature thereof, cannot be reproduced in the court hearing⁸. This must also abide by the aforementioned principles. A graphic example might be the testimony of a witness suffering from a grave illness who might die before the court hearing is held.
- *Prueba Indiciaria* (Circumstantial evidence): This is any evidence based on the provision of indirect proof that nonetheless is more than mere suspicion and can help to override the assumption of innocence.
- *Fuente de prueba* (Source of evidence): This refers to the material means whereby we come by the evidence. For example, the witness is a source of proof in the form of the testimony.

Carrying out necropsies and toxicological analyses in the laboratory. Quality and accreditation system of forensic veterinary labs

As key players in criminal proceedings the judicial police can turn to the *Instituto Nacional de Toxicología* (National Toxicology Institute) for sample analysis, usually obtaining a court order for that purpose. Nonetheless, the sheer breadth and also the specificity of issues dealt with in the fight against poison mean there is a need for laboratories working specifically on wildlife necropsies and the associated toxicological analyses.

4. We stress once more the vital importance of the chain-of-custody in the collection of all potential evidence and observance of all the procedures to follow in order to forestall subsequent rulings of nullity.

5. Theory of the fruit of the poisoned tree (no subsequent event can correct past vitiation)

6. Article 24.2 of the Spanish Constitution

7. Chapter VIII has already dealt with indicative evidence and its requisites, and how it differs from mere suspicion

8. Articles 333, 336, 343, 350, 356, 466, 467, 569, 579 and 584 of LECRIM

Along these lines several laboratories throughout Spain have begun to specialise in wildlife necropsies and toxicological analyses of wildlife, especially poisoning cases. These laboratories depend on the CCAA⁹ or other institutions like universities, although the state law enforcement agencies also run their own laboratories¹⁰. They have been awarded official certification¹¹ and are making constant headway, giving scientific backing to the cause of death of the animal and the compound used and also furnishing DNA profiling techniques and other techniques that have all proven to be crucial in clearing up diverse cases¹². Special mention must go here to Spain's Wildlife Rescue Centres (*Centros de Recuperación de Fauna Silvestre*) and the work they are carrying out in the various CCAA in terms of necropsies and giving advice to environmental law-enforcement officers, etc. They have become an invaluable tool in the fight against illegal poisoning.

The ultimate objective of any forensic laboratory in relation to suspected poisoning cases or other illegal activities affecting wildlife is to help the authorities to deal with them. Laboratory findings may end up in court and each case may bear a relation to damage that might be ecological, economic, emotional or even affect human health. In cases where protected species at risk of extinction are involved the biological damage may be incalculable. It is hence perfectly understandable that the laboratories and authorities should be so keen to ensure the reliability of results that might be questioned in court and thrown out if found to be untrustworthy.

The current trend in CCAA is therefore to favour laboratories that have set up their own quality system and meet international standards on this matter (based on ISO/IEC 17025)¹³ or have obtained ENAC accreditation¹⁴, thereby vouching for their technical expertise and increasing the likelihood of obtaining trustworthy, tried-and-tested results.

The quality of any laboratory is built up in its daily work. Crucial factors are good infrastructure, proper instruments, responsible, well-trained and motivated personnel and, where applicable, the backing of the competent authority. The quality system set up, together with the laboratory's experience, is a guarantee of good results for dealing with incidents and coming up with an answer to the need of clients (including government authorities). This is one of the goals pursued by many laboratories, including CAD.

9. Centro de Análisis y Diagnóstico de la Fauna Silvestre de Andalucía (CAD) or the Institute of Investigation in Hunting Resources (*Instituto de Investigación en Recursos Cinegéticos: IREC*) of Ciudad Real

10. Guardia Civil Criminal Investigation Laboratory (*Laboratory de Criminalística de la Guardia Civil*)

11. National Accreditation Entity (*Entidad Nacional de Acreditación: ENAC*) + www.enac.es.

12. Poisoning of an Iberian lynx. 2008. Andújar (Jaén). Genetic comparison by CAD of the baits with chickens of the assumed perpetrators provided crucial evidence for their eventual conviction.

Operación Dakar. 2009. Dismantling of an organised poaching band who were then distributing their unlawfully procured produce to hotels in *Espacio Natural de Doñana*. Proof by CAD of identity between a red-doe head found on the crime scene and meat found in searches was fundamental in clearing up the case and proof of indicative evidence revealed by phone tapping.

Operación Caperucita Roja. 2012. Extraction and genetic analysis by CAD of blood samples from various herds of sheep and goats in Sierra de Castril (Granada) and genetic comparison thereof with baits found on the poisoning site of several Lammergeiers was vital in dealing with this case.

13. NORMA UNE-EN ISO/IEC 17025: General requirements for the competence of testing and calibration laboratories, 2005

14. National Accreditation Entity (*Entidad Nacional de Acreditación: ENAC*) + www.enac.es.



Necropsy and subsequent toxicological analysis of the samples make up fundamental evidence. © CAD

The following sections aim to give a good idea of a laboratory's quality system, focusing especially on those carrying out toxicological analyses for dealing with poisoning cases. It is also important to know which laboratories are properly authorised for carrying out work of this type. Lastly, a brief description is given of how CAD carries out its forensic studies, including necropsies, sample taking and toxicological analyses for dealing with poisoning cases following standardised testing procedures (ISO/IEC 17025) with a view to ENAC accreditation.

In which laboratories can wildlife-poisoning studies be carried out?

Pursuant to the Animal Health Law 8 of 24 April 2003 (*Ley de Sanidad Animal*)¹⁵, each CCAA is empowered to determine the authorised laboratories for carrying out various analyses (diagnoses of animal diseases, analysis and control of toxic substances, etc).

The laboratories have to be furnished with the necessary human and material resources to guarantee conservation of the deposited samples, their subsequent analysis and issue of the corresponding reports or expert depositions.

15. Título II, Capítulo V, relativo a los laboratorios.

The range of authorised laboratories customarily carrying out the complete process in poisoning cases includes some universities that run schools and departments with experience in toxicology, wildlife rescue centres and specialised laboratories and centres¹⁶.

In Andalucía there are specific requisites laid down in *Decreto 73/2008*¹⁷ and impinging on all the establishments, both public and private, that conduct studies, analyses and projects related to animal and plant health and wild flora and fauna. Any laboratory that carries out analytical activities described in said *Decreto*, including the diagnosis of sick animals, the analysis of residues of products that may be used as poison to the detriment of wildlife or quality control and analysis of genetic material is bound to obtain administrative authorisation.

In Andalucía the only authorised laboratory specialising in wildlife is CAD, based in Málaga. It is included in the Single Register of Farming Laboratories and Wildlife Laboratories (*Registro Único de los Laboratorios Agroganaderos y de los Laboratorios de Especies Silvestres*) of the *Comunidad Autónoma de Andalucía*¹⁸. The analytical results issued by this laboratory therefore have official validity. CAD is currently having its testing procedures accredited; this will without doubt enhance the work of the *Consejería de Agricultura, Pesca y Alimentación* of the *Junta de Andalucía*.

From the field to the laboratory

As already pointed out, after on-the-spot inspections in the field, samples of very varied ilk are sent to the laboratory for analysis:

- Carcasses in a varying state of conservation (fresh, autolytic, mummified and bone remains).
- Vomit of poisoned animals, eggs, bait of very varied nature and design (meat, charcuterie, carcasses steeped in poison).
- Insects.
- Inert material that might have come into contact with the poison (gloves, boots, bags, household implements, etc.).

The laboratory, abiding at all times by the chain-of-custody of which it forms part, records and photographs the sealed material received, checks that the samples tally with those indicated in accompanying reports and assigns to them a single code that is kept for all analyses carried out

16. *Universidad de Cáceres*, whose *Departamento de Toxicología* (Toxicology Department) of the *Facultad de Veterinaria* (Veterinary School) is an authorised laboratory in Extremadura; the Institute of Hunting Resources Research (*Instituto de Investigación en Recursos Cinegéticos: IREC*) in Castilla la Mancha or La Alfranca of Aragón as an example of a wildlife rescue centre authorised for this purpose.

17. *Decreto 73/2008, de 4 de marzo, por el que se regula la autorización, Régimen Jurídico y Registro Único de los Laboratorios Agroganaderos y de los Laboratorios de Especies Silvestres*. Sections 2a, 2b and 3.

18. Access to the list of authorised laboratories entered in the *Registro Único de los Laboratorios Agroganaderos y de los Laboratorios de Especies Silvestres*: <http://www.juntadeandalucia.es/agriculturaypesca/portal/areas-tematicas/ganaderia/laboratoriosagroganaderos/registro-de-laboratory-agroganaderos.html>

thereon, ensuring complete traceability at all times of tests, storage, destruction or return, or, where applicable, assignment to national or international projects.

Dating of the animal's death is fundamental. The overriding aim is to establish the suspect's presence in the site at the moment of the crime, so the most accurate possible estimate of the date of the animal's death is crucial¹⁹.

This refers us back for the umpteenth time to the overriding importance of the initial on-the-spot visual inspection. How this is carried out and documented in the reports will then determine whether the laboratory has the necessary information to work with. It vital to note all the following:

- Give as much general and specific weather information as possible: nearest weather station; temperature, relative humidity at the moment of removing the carcass; other information such as shading or sun exposure of the carcass according to the time of day; postural clues, carcass's zone of contact with the ground²⁰; plus any other complementary information of interest.
- Include, as part of the carcass removal procedure (normally in a separate container from the carcass itself), such items as remains of skin and fur or mixture of fluids and earth, if any.

In other words we should be the on-spot eyes of the technicians who are going to carry out the necropsy, to enable them to interpret all the field data as comprehensively as possible. Unfortunately, this essential spadework beforehand and proper liaison afterwards does not always exist and this fault should be eliminated completely²¹.

Post-mortem examination and sample-taking during the necropsies

The first logical step before analysis of the samples is the macroscopic analysis. All possibilities have to be considered, not only poisoning. In fact a simple X-ray could show baits made with nails or severe internal injuries in animals.

In other cases the visual examination will provide the initial clues to the possible toxins contained in the sample, mainly in the baits (for example pellets or liquid or sticky substances with different colourations). Only the chemical analysis, however, will give us the exact composition.

19. *Espacio Natural Doñana*. Summer 2011. After the carcass of a subadult Iberian lynx appeared in an advanced state of decomposition, two individuals were charged for allegedly shooting it. Dating of the death by CAD turned out to be crucial in this process.

20. The photographic report should reflect this as precisely as possible

21. This once more stresses the need for collaboration and liaison, essential in the fight against environmental crime.

During the external examination, assessment of the carcass

During the necropsy, regardless of the state of conservation of the carcass, a detailed external inspection thereof will be made. Some crucial signs to look for are exit of blood from natural orifices (possibly indicative of intoxication or severe bodily injury); burns on talons or feathers (electrocution), perforations in the skin (possible gun wounds or due to the action of carcass entomofauna), and many other possible findings.

Animals that die rapidly with very severe *neurologic signs* (for example from action of strychnine or cholinesterase-inhibiting pesticides), show evidence of this suffering, and the necropsy will show up an atypical postural appearance. A frequent finding in birds is rigidity in the talons, with remains of vegetation, beak ajar, flexion in the neck and wings. Mammals often show a typical rictus and, at times, injuries caused by convulsions. Other observations might include exit of faeces and presence of bait remains in the gape and on the claws of birds.

When bone injuries are observed, it is then necessary to assess them, trying not to jump to conclusions. The presence or absence of hematomas or associated reaction, recent or old, in bones and surrounding tissues, can help to ascertain whether the injuries occurred before the death (ante or peri-mortem) or whether they are old injuries unrelated to the death or posterior thereto, due to the action of scavengers or simple dismemberment due to being dragged along by other animals.

A very important factor to consider is the carcass's bodily condition. If this is generally quite healthy-looking, this could help to rule out chronic or debilitating illnesses or chronic intoxication due to accumulative toxic compounds (for example, organochlorides or some metals).

During the internal examination (organs, tissues)

The lab necropsies are carried out in a painstaking and detailed way. This goes under a formalised and standardised necropsy procedure (*necropsia reglada*).

When we analyse a supposedly poisoned carcass, usually of a bird or mammal, we do not know what type of poison it might have ingested. All systems and organs are examined, since the lesions caused by poison are sometimes non-specific; furthermore, in cases of acute poison exposure, the death may be so quick that no signs are appreciable in organs and tissues.

One of the systems most likely to provide valuable information is the digestive system, so it has to be examined in great detail. The presence of pellets or material that has taken on an unusual coloration may be signs of a poisoning event. The absence of any content, when the bodily condition is good, ical in those cases when no toxin is detected even though the postural clues point to poisoning). An attempt is also made to find signs of gastric irritation in the mucous, backing up the theory of vomiting or stomach dilatation; this symptom may still be present even in very autolytic carcasses.

In general the most active compounds are the organophosphates and carbamates, followed by organochlorides and compounds like metaldehyde, which can act in a few hours or even minutes (sudden or acute death). Symptoms that may be observed in these cases range from simple redness or congestion to haemorrhages in subcutaneous tissue, intestines, lungs, kidneys and liver. Lung lesions (congestion, excess of fluid, etc), indicate a respiratory failure; this occurs in

acute deaths from poisoning but may also be the result of many other causes.

Lesions from anticoagulant rodenticides may show up after chronic ingestion or after exhaustion of coagulation factors (vitamin K, synthesised in the liver). Death is not necessarily immediate; it may take days; for this reason the signs are sometimes difficult to retrieve in the subsequent toxicological analysis. Animals may show such lesions as congestion, generalised haemorrhages, a great amount of unclotted blood and paleness of the organs.

The most persistent toxic compounds, like organochlorides, strychnine or heavy metals, may remain in the organisms for weeks or even years. In many cases they are detected incidentally in the laboratory due to their secondary effects, such as emaciation (obvious thinness, lax muscles, absence of fat), hepatomegaly (enlarged liver)... Weight loss caused by migration stress, malnutrition and other causes may lead to a build-up of organochloride residues in the brain and cause acute toxicity. The debility makes them more injury prone (collision, run over on the road) and also more susceptible to infections, due to the immunosuppression caused by toxins of this type. Symptoms that may be observed in these cases range from signs of immunodepression in tissues of the immune system to lesions in organs caused by infection-causing microorganisms. Immunodepression is usually brought out by histopathological studies (spleen, lymphatic system), as occurs in intoxication by DDD (the DDT analogue).

The following figure gives an outline scheme of possible signs of poisoning that may be found during the necropsy, according to the type of compounds involved and the time after ingestion:



Fig. 7. Possible symptoms of poisoning that may come to light in the necropsy

Important carcass samples to take for the toxicological study

Judging from our laboratory experience, the selection of samples has to include at least the following, because they might in some way have come into contact with the compound or its metabolites:

- Talons or remains in the oral cavity.
- Vomit, even if dry, in the gape flange of the beak or between the teeth of mammals.
- Stomach and tracheal content and, in birds, contents of any pellets and the crop, ventricle and proventriculus.
- Organs involved in the metabolism of toxins, target or storage tissues such as liver, kidney, fat and bones.
- Where possible, blood and brain samples. Toxicological analysis of these samples enables important cholinesterase-inhibition studies to be carried out. Carried out on the brain, it can provide irrefutable proof of death by poisoning. For these analyses it is preferable for the animal to be fresh, so it should be frozen before and during dispatch.
- Eggs, larvae, chrysalides of carrion insects should also be collected. Invertebrates might contain a build-up of toxins.

Logically, how much of each sample is taken will depend on the state of conservation of the carcass. The next section gives a detailed account of the protocol followed in the CAD laboratory for very autolytic or even mummified carcasses.

In the time running from poison exposure to carcass discovery, the soft tissues degrade (autolysis), even reaching a state of mummification. In such cases we see in the laboratory that internal organs are unrecognisable or even absent, so we cannot use this material for the toxicological analysis. The laboratory's experience in such cases enables it to look for alternative samples to the classic ones outlined above. Working from the premise that the best samples in such cases will be those that have been least weathered, in the CAD we have obtained very good results from talons, beak, carcass fauna and even the palate. All have expedited the prosecution of poisoning cases involving carcasses taken from the countryside and now in a state of mummification or skeletal reduction.

Toxicological analysis procedure

All samples taken from carcasses, baits and other diverse material have to be processed in such a way as to ensure no loss of toxins and avoid contamination thereof with other toxins or substances that would interfere in the analysis. At all times the abovementioned official benchmark recommendations are followed:

1. The first stage is to homogenise the sample; this usually includes selection, cutting, shredding drying.

2. Separation of the toxin from the other compounds of the sample. There are various techniques: liquid-liquid, solid phase, etc. The first is one of the most widely used procedures. Once homogenised the sample is mixed with organic solvent (dichloromethane in the case of pesticides, chloroform for extraction of strychnine and a mixture of acetone and methanol for rodenticides), stirred in a separating funnel with the solvent and left to evaporate.
3. Purification of the toxin to eliminate, as far as possible, other substances that might interfere in the analysis such as fats (very common in autolytic carcasses and manufactured baits) or excesses of protein. This is achieved by means of a single technique or several combined techniques. In the CAD laboratory solid phase extraction (SPE) columns work very well with our habitual samples. Depending on the packing used, solvent and sample are sucked through the column by vacuum. Analytes are kept back by attraction and then eluted with a different solvent while any interfering substances are retained.
4. The extracts, now clean, are evaporated to dryness and reconstituted in a volume of the same solvent before going on to identify the toxin(s) (cocktail). Standards lay down at least two different techniques for this procedure, one more specific than the other. From the wide range of techniques, the choice made is usually a first analysis (screening of compounds) followed by a second analysis for confirmation and quantification:
 - Screening tests may be targeted at a reduced group of chemicals like strychnine or a wider range such as organophosphates, carbamates or rodenticides.
 - Confirmation techniques: these include more specific and sensitive techniques with a different physico-chemical principle from the first technique.

The screening technique used in CAD's laboratory is thin-layer chromatography. Not only is it the quickest method but it also facilitates a previous semi-quantitative assessment of what the samples might contain. These tests include commercial standards and positive and negative controls.

Other techniques may also be used. The selection depends on the toxin; gas chromatography (GC), for example, is often used for the analysis of pesticides. If the compound is thermolabile (e.g., aldicarb) or of high polarity, the GC technique cannot be used. In these cases another technique is used, for example high performance liquid chromatography (HPLC).

5. The chosen confirmation technique is gas chromatography-mass spectrometry (GC-MS). The compounds are ionised and resolved according to their mass-to-charge ratio. Ionisation is by electron impact (EI), a widely used method for pesticides.

Results in CAD's laboratory are conformed by means of ion-trap (IT) and triple quadrupole (QqQ) gas chromatography / tandem mass spectrometry (GC-MS/MS); ultra-high performance liquid chromatography coupled to triple quadrupole (QqQ) tandem mass spectrometry (UHPLC-MS/MS) or to high performance mass analysers (UHPLC-MS Orbitrap). The latter allows detection of very low concentrations of breakdown by-products (see summary scheme in annex 1).

6. To facilitate identification of the various substances present in a sample, there are many libraries of reference electron-impact spectra published by individual authors or commercial houses. The spectra obtained for the problem sample can then be compared against the references in these libraries.

The current development rate of analytical techniques allows determination of up to 150 pesticide compounds in a single injection. These multi-residue methods were initially designed for the agrofood industry and for analysis of environmental matrices.

Pesticide and rodenticide analysis is often complicated by the very low quantities involved, their intermixture (cases of cocktails of poisons) or because the compound has degraded in the organism or the environment (biotransformation); this means that only degradation by-products can be detected. The techniques used therefore need to be sensitive enough for this purpose.

Variables impinging on analytical results and their interpretation

Although there are many variables that might impinge on analytical results, we cite here only the most important on the basis of our experience:

1. *Those affecting the stability of the compound in the sample.* The poisons most widely used in the countryside, belonging to the groups of organophosphates (chlorfenvinphos, methamidophos, malathion) and carbamates (aldicarb, carbofuran, methomyl), are also the hardest to detect because of their low stability. They metabolise and hydrolyse quickly in the organism (in an attempt by the animal to eliminate them in urine and faeces) and in the environment (due to temperature, humidity and bacteria). For these reasons laboratories have to use detection techniques sensitive enough to detect low levels of toxins and degradation by-products, the latter being crucial in wildlife poisoning cases, as already pointed out.
2. *Interference with the analytical method.* The sample in itself may contain inhibitors or compounds that might react during the analysis and give rise to a false negative. Two purification processes are therefore called for.
3. *Moment of the sample taking.* Some animals might die from intoxication even after having eliminated the toxin, whereby it would be impossible to detect the product in their viscera. This occurs, for example, when the animal is subjected to a detoxification process in veterinary clinics and dies afterwards.
4. Another results-interpretation problem stems from the variable effects of the same toxin according to the animal species involved and the lack of fatality data in many of them; this is especially important in cases involving wildlife.

As regards the first factor, the same toxin has very different effects according to whether the animal in question is a bird or mammal, but there are also intraspecific differences of sensitivity due to tolerance, genetic causes or circumstantial reasons (underlying illness affecting toxin-elimination organs and thus rendering the individual more sensitive).

As regards the second factor, concerning toxin fatality figures for wildlife, there is an added complication, i.e., the presence of several toxins (use of poisoning cocktails), which could produce interactions both of synergy and enhanced antagonism, so the concentrations of the various toxins should not be interpreted separately.

In short, interpretation of analytical results is not easy and should always take into account the characteristics and circumstances of the individual and toxin, and also the implications of the time that passed from toxin absorption to sample-taking in the laboratory.

Results report

The results report of CAD's laboratory, like that of other laboratories, has to include all data called for by the standard ISO/IEC 17025: i.e., all the information necessary for identifying the case and its origin, test results and the signature of the person responsible for same.

Interpretation of the necropsy findings may also be included, plus a description of the baits, joint interpretation of all results, any conclusions that might be in order and references to legislation and effects on specific animals of the detected toxin. The objective of this information is to expedite use of the information by legal personnel outside the laboratory.

This results report, together with all chain-of-custody documentation, is an important weapon in the fight against illegal poisoning as coordinated by the Andalusian government.

Drawing up technical reports

Technical reports are always important and sometimes fundamental in cases of wildlife crime. They may input invaluable complementary information that then decides whether the case goes forward as a criminal or administrative proceedings. They will obviously always be signed by skilled and qualified technicians in the matter in hand, acting as expert appraisers.

These reforms may afford the following information:

In criminal proceedings:

- Degree of malice aforethought or culpable recklessness:
 - In the case of poison, as we have already seen, article 336 of the Spanish Penal Code does not specify perpetration by recklessness but only by malice aforethought²². It is therefore crucial to establish whether or not the act of poisoning was deliberate. For example, in the

22. Following this publication the *Ley Orgánica 1/2015, de 30 de marzo, por la que se modifica la Ley Orgánica 10/1995, de 23 de noviembre, del Código Penal*. introduced the perpetration by recklessness into the Spanish Penal Code

case of organophosphates, which are compounds of deferred action (remote poisoning), improper use may result in poisoned wildlife without any intentionality. For example:

- A biocide cleared for disinsectisation of dogs under a veterinary prescription may be used by malpractice in sheep, which are then immediately scavenged before being removed. Studies have shown that, in such cases, low concentrations might be enough to kill small raptors and corvidae²³ but not big carrion-eaters like the Griffon Vulture.
- A technical report, on the basis of such factors as the high concentration of the product, the differential behaviour of the dead birds²⁴ and the lie of the carcass, may help to reveal intentionality (posture of a large bait like a calf or a ewe deliberately sprinkled with the substance) and rule out mere recklessness (accidental intoxication of small raptors from applying the product to the fleece of the sheep even though it has not been cleared for use on this species), thereby confirming the crime or, on the contrary, dismissing it and, ipso facto, the concomitant criminal liability.
- The punishable behaviour's degree of incidence on the environment:
 - When threatened species are involved, a technical report will give us bona fide information on the impact of the particular animal's death on the species' population and survival chances.
 - When protected sites are involved, certain behaviour might have a crucial effect on the species living therein²⁵, with an indirect but crushing incidence thereon²⁶.
- Ballistic reports: If the case involves firearm use, the ballistic reports input priceless information on coincidence between the weapon assumed to have been used and cartridges found in the on-the-spot visual inspection, on the trajectory of impacts, etc., giving crucial insights into the intentionality of the acts.

In administrative proceedings:

All the abovementioned reports could have a great influence on the degree of infringements and penalties, regardless of whether administrative proceedings are taken from the start or are the result of shelving or dismissal of the criminal case or acquittal thereunder.

23. Henny, C.J. et al. Case histories of bald eagles and other raptors killed by organophosphorus insecticides topically applied to livestock. 1987. *Journal of Wildlife Diseases*. Pp. 292 to 295.

24. A large carrion eater will come down to a big carcass but not a small bait.

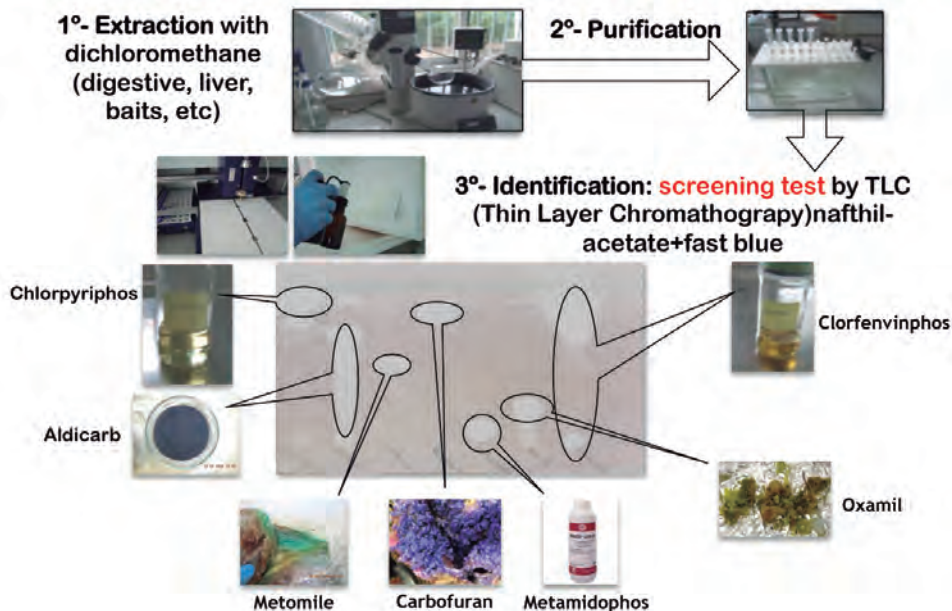
25. Indiscriminate hunting of frogs for human consumption could be classed as an administrative infringement, but the outlook could change radically if the site is home to nesting Black Storks (*Ciconia nigra*), as a species listed as "In danger of extinction" which feeds mainly on amphibians. A toxicological analysis of frogs containing salmonella might reveal a crime against public health if these frogs are to be used for human consumption in hotels and restaurants (frog's legs).

26. In the case of non-selective means this indiscriminate effect on any species is blatantly obvious. Especially wire snares, traps and poison. It is vital for the technical report to record this effect.

Annex 1. Summary of toxicological analysis methods for detection of toxins in CAD's laboratory:

1. Screening techniques employed, broken down by groups of toxins:

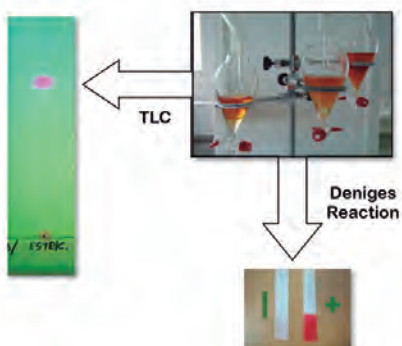
Toxicological analysis (cholinesterase inhibitors)



Toxicological analysis

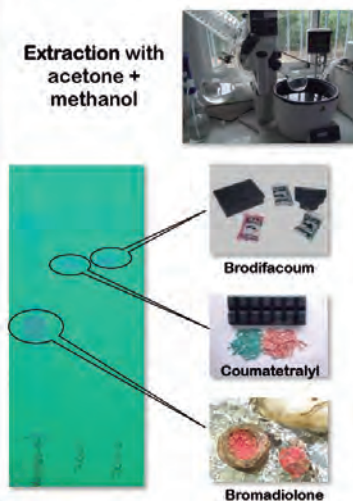
Strychnine extraction

- 1°-Acid-base extraction
- 2°-Washing with organic disolvents
- 3°- Liquid-liquid extraction with chloroform

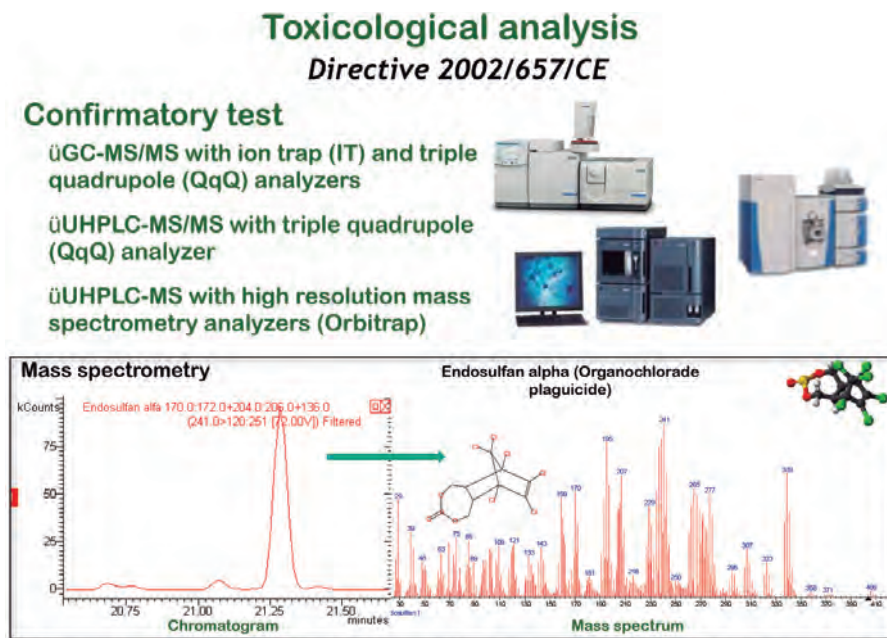


Rodenticides extraction

Extraction with acetone + methanol



2. Confirmation Techniques:



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Chapter VIII

CRIMINAL PROCEEDINGS

José Antonio Alfaro Moreno, *Teniente Jefe del Servicio de Protección de la Naturaleza de la Comandancia de la Guardia Civil de Huelva* (Chief Lieutenant of the Nature Protection Service of the Command of the Guardia Civil of Huelva)

“Imagination is more important than knowledge”. **Albert Einstein**

Introduction

The sheer importance of the fight against poisoned-baits, and also of any other criminal investigation into wildlife or environmental crime, is gradually gaining its just recognition. Society is becoming increasingly aware of the importance of conserving the environment and biodiversity, thanks to the dauntless work of several stakeholders over many decades. In Spain, especially, such marquee species as Iberian lynx, Imperial Eagle and Bearded Vulture have come to be felt by society as a vital part of their communal being, to be conserved at all costs.

This change of outlook in rural areas is reflected in the development from the erstwhile Local Boards for the Extermination of Vermins (*Juntas Locales de Extinción de Alimañas*) to today's Life projects, from the livelihood of vermin hunter (“*alimañero*”) to naturalist. As a result of this progress new generations understand conservation of the environment to be absolutely vital and consubstantial with the human being's own welfare.

Moreover, if society has decided to spend part of its hard-earned resources on the conservation of biodiversity, through various institutions and NGOs, bringing its legislation into line with this goal, it is only logical for behaviour working against this purpose to be worthy of collective reproach in the form of administrative penalties, the most serious crimes being specified in the Spanish Penal Code.

In Spain, however, criminal case law on environmental matters is still in its infancy, with a much larger record of convictions in crimes against town and country planning and forest fires than of crimes against flora and fauna.

This chapter aims to strike a line midway between the judicial aspects of the criminal procedure and investigation methods, hopefully making it useful both to judiciary personnel and also the environmental officer or expert or the law-enforcement officer. It therefore sets out to give the reader a true and up-to-date vision of how wildlife-crime investigations are handled, especially crimes involving poisoned-baits.

These investigations, carried out as part of their remit by environmental law-enforcement officers²⁷, and in close liaison with technicians and accredited laboratories, is today comparable to any other criminal investigation and carried out with the same commitment.

Each section of this chapter will give a real-case example of each intervention to serve as a graphic guide to the points made therein.

The starting point: the on-the-spot visual inspection²⁸

Previous chapters have already mentioned the crucial importance of the first reconnoitre of the “crime scene” by the environmental law-enforcement officers so we only need to touch on it here.

It is vital for officers to bear firmly in mind that, dealing as they are with an environmental issue, they will not know at first if it is an administrative infringement, a crime or an event that will have no legal fall-out at all, so they should make no presuppositions. They should therefore act as painstakingly as possible, to ensure that all information collected and recorded may be put to best effect in any ensuing administrative or criminal proceedings.

By way of comparison, in the road safety arena a traffic police officer conducting a breathalyser test will always follow the same procedure, regardless of whether the outcome is an administrative case, a criminal indictment or, quite simply a “*good evening; drive on please*”.

It would be quite illogical, on the other hand, to try to untangle a road-safety crime three months later when the report at the time mentioned only the failure to fasten the safety belt.

In the area we are dealing with here, the scenario changes non-stop, not only from one day to another, but even from one hour to another. Any information we fail to record today may be unavailable tomorrow. No environmental law-enforcement officer or any environment protection officer or expert should ever lose sight of this factor.

Any member of security forces and corps²⁹, in his or her induction training, is given basic instruction and knowledge on how to conduct an on-the-spot visual inspection. Throughout their career every one of them will have to draw up a report that will then be perused by specialists afterwards. This basic knowledge can be summed up simply as *observe, take notes, take photographs and, above all, don't touch anything that should not be touched*.

27 The main environmental law-enforcement officers in Spain are the *Servicio de Protección de la Naturaleza de la Guardia Civil* (SEPRONA) throughout the whole national territory, environment officers (given different names in different regions), the Environmental Crime Team (*Equipo de Delitos Medioambientales*) of Catalunya's regional police force (Mossos d'Esquadra), the Environmental Brigade of the regional policeforce (*Brigada Medioambiental de la Policía Foral*), in Navarre the Green Unit (*Unidad Verde*) of the Basque Country's policeforce (*Eirtzantza*) and the Assigned Units of the National Policeforce (*Unidades Adscritas del Cuerpo Nacional de Policía*) in regions such as Andalucía, Galicia or Comunidad Valenciana (*Valencia Region*).

28 Called in Spanish “*Inspección Técnica Ocular*”, shortened to ITO

29 Shortened in Spanish to FCS



Moment of a visual inspection in a poisoning episode. © SEPRONA Huelva.

All environmental law-enforcement officers, whichever particular force they may belong to, should also be given advanced training to round out this basic instruction, teaching them the best way to record the removal of carcasses from the site and in general carry out the on-the-spot visual inspection. This is so because the subsequent procedure will certainly depend on three fundamental factors:

- The law-enforcement competence of the intervening parties.
- Actual compliance with established procedures.³⁰
- Maintenance of the chain-of-custody of the samples obtained throughout the whole process.

As pointed out in previous chapters environmental law-enforcement officers will exhaustively and painstakingly reconnoitre the area, making a written, photographic and even videographic

³⁰ Among others: Regional Council of Andalusia-Regional Environment Ministry-Instruction of the underministry for the prevention, deterrence and prosecution of the illegal use of poisoned bait (*Junta de Andalucía-Consejería de Medio Ambiente-Instrucción de la Viceconsejería para la Prevención, Disuasión y Persecución del Uso Ilegal de Cebos Envenenados*), of 3 March 2009. Directorate General of the Guardia Civil (*Dirección General de la Guardia Civil*)- Head Office of SEPRONA- Technical procedure guide number 2 (*Jefatura SEPRONA-Guía de Procedimiento Técnico número 02*), February 2013

record of the scene, formally removing the carcasses and collecting as much potential evidence as may be of interest to the investigation. We stress the importance of the agents being conscious at all times of the uniqueness of this first on-the-spot visual inspection. Even though complementary inspections may be made afterwards, the scene will have changed by then. They therefore need to be particularly painstaking, cordoning off a sufficiently wide radius around the main find and recording, among others, all the following potential evidence:

- Carcasses, baits, bone- or biological-remains. Special attention will be paid to proper recording of all postural signs and clues, including GPS coordinates (and the Datum used).
- Carcass fauna, insect pupae, remains of fur and hair, skin, etc., all of which will be essential for subsequent dating of the death by forensic entomological experts.
- Footprints, wheel tracks, according to standardised procedures, for subsequent comparison or their inclusion in police databases.
- Containers, gloves or any other object likely to have been handled by the perpetrator of the act, with the aim of then obtaining fingerprints, identification of phytosanitary products, DNA, etc, in the laboratories.

The report of the alleged offence (*atestado*): Reflection of the fieldwork and start of the procedure

The report of the alleged offence (*atestado*) is not set in stone, despite what many professionals may think. It serves for all purposes as the formal report of the alleged crime (*denuncia*)³¹, but it is much more than that. It is the reflection of the work that the judicial police officer has carried out during the course of a criminal investigation, the instrument whereby the investigator leaves a record of what has been done, setting it forth to the judicial and prosecution authority, and the start and basis of what may ensue thereafter in the criminal proceedings³².

What we want to make clear here is that the report of the alleged offence has some minimum contents that are the same for any act we may be dealing with but also allows inclusion of as many other items as the case examiner may deem fitting, technical reports, etc., for the purpose of including as many indications, data or information as he or she may be in possession of, and pass them on to the competent authority. At the same time we need to be scrupulous with all procedural formalities.³³

In sum, the report of the alleged wildlife crime should include at least:

- *Exposition of the facts of the case.* The acting force will give a written account of events in the most exhaustive and specific way possible, making reference to subsequent documents.

³¹ Article 297 LeCrim., first paragraph.

³² For an in-depth study of the report of the alleged offence (*atestado*) see Marchal Escalona, A.N. *El atestado. Inicio del Proceso Penal*. 1999 (2nd Edition).

³³ Article 297 LeCrim, paragraph three.



Collection of poisoned-baits. © SEPRONA Huelva.

- *Background information.* If there is any relevant background information this should be expressed in a section in its own right.
- *Witness declaration.* Any witnesses will be invited to declare voluntarily. In any case their relation to the case will be recorded for the information of the court or prosecutor. No inclusion will be made here of such declarations as interested parties or witnesses may freely and spontaneously make, all of which have to feature in the report of the law-enforcement officer. It is very important to take into account the following:
 - If there is any indication of some degree of participation of the witness in the acts, due consideration should be given to the possibility of taking down the declaration as a non-arrested indicted suspect (*imputado no detenido*), regardless of what has been expressed in the report of the law-enforcement officer. This will be done to safeguard the constitutional rights of the subject and forestall the possibility of the case being thrown out later.³⁴

³⁴ This will be dealt with in the next section of this Chapter.

- If the witness's declaration gives some potential evidence that leads the case examiner to conclude that said witness was involved in the acts, the declaration should be halted at this point and continued as *imputado no detenido*, with all such legal formalities as are detailed below.
- *Procedural details.* These are the details that the report of the alleged offence needs to include in order to record certain facts (appointment of the case examiner and secretary, record of arrangements, etc.).
- *Provisional conclusions.* This consists of a report in which the case examiner, on the basis of everything done so far, interprets the information and expresses it to the judge or prosecutor. It will also reflect the points to be developed in the investigation. It will be an attempt, in short, to record the *modus operandi* and the line to be followed in the future.
- Report of the law-enforcement officer (*actas*). This is the document whereby the law-enforcement officer operates *in situ*³⁵. It will be included preferably as an annex. It sets down a written record of what has been done, in a descriptive and objective way without entering into any value judgments. It has to point out:
 - The physical area and timeframe of the action, plus acting personnel, witnesses, if any, and interested parties (owners or tenure holders), and, information permitting, the weather and circumstances of the site³⁶.
 - A detailed account of everything done (samples obtained, other potential evidence).
 - If any annexes are needed, these will be added as necessary, with an account thereof on the first page.
 - The pleas of the interested party will preferably be written by the interested party him or herself, being read out to him afterwards.
 - It has to be signed on all pages by all intervening parties, with an account of the reason for any missing signature. It will also feature the seal of the unit involved.
 - A copy will be offered to the interested party, with an indication of whether this offer was accepted or rejected.
 - It will include information on personal data protection³⁷ included in the report of the law-enforcement officer.
- *Document of chain-of-custody.* The document will necessarily and without exception be filled in for each sample obtained, accompanying it throughout the whole process. A copy will be included in the report of the alleged offence during the case-examination process.

³⁵ By way of example see the Nature Protection Manual (Manual de Protección de la Naturaleza) of the Guardia Civil

³⁶ Chapter X will deal with this aspect

³⁷ Pursuant to the provisions laid down in the Spanish Data Protection Act 15 of 13 December 1999 (*Protección de Datos de Carácter Personal*: LOPD).

- *Photographic report.* This is fundamental in any report of an alleged wildlife crime to give court authorities and laboratory personnel a good idea of the site involved and its layout. It will be included as an annex:
 - It will begin with a document identifying the officers who have drawn it up and their duties, the time and place it was produced and technical details of the material used (cameras, printers, paper)
 - It will include general plans of the site, including reverse shots (opposite view), mid-ground shots and as many close-ups as may be necessary. As many alphanumeric benchmarks and rules as necessary will be used for this purpose.
 - Any necessary explanations will be given at the foot of each photograph, in keeping with the indications given in the law-enforcement officer's report, plus time and place.
 - If need be, the report of the alleged offence can include a physical medium (CD or the like) with a copy of the unedited photos.
 - If the on-the-spot visual inspection was conducted under adverse conditions (night-time, poor visibility due to weather conditions), a complementary report under ideal conditions should preferably be drawn up.
- *Termination and handover.* In default of any more urgent proceedings, the report of the alleged offence will be handed in to the court or public prosecutor's office, according to the circumstances under which the examination process was begun³⁸. The form and date of the handover will be duly recorded.
- *Technical reports*³⁹. Attached to the report of the alleged offence will be such technical reports as may be in order, normally as annexes, attaching thereto also the official request of the technical report in question.
- *Supplementary proceedings.* Depending on how the investigation was carried out, as many supplementary proceedings will be included as necessary, doing so either by communicating the new enquiries made or furnishing new documents, etc.

The arrest

It goes without saying that an arrest is a preventive personal measure of a provisional nature, pursuant to article 17 of the Spanish constitution, citizen rights thereunder being developed in LeCrim.⁴⁰ It should last only the minimum time strictly necessary with a legal deadline of seventy two hours for the arrested person to be released or placed in judicial custody.

³⁸ Article 295 of the LeCrim.

³⁹ Dealt with in Chapter X.

⁴⁰ Article 489 to 501 of the LeCrim

It is worthwhile to enumerate the cases and persons entitled to take this measure⁴¹, bearing in mind that it has to be carried out in such a way as to least damage the subject's person, reputation and assets.⁴²

- *Citizen's arrest:*

- Anyone about to commit a crime
- The delinquent caught *in fraganti*.
- Anyone attempting to flee from a prison to which they have been legally committed.
- Anyone fleeing from a prison when awaiting transfer to the definitive penal establishment where he or she is to carry out the sentence to which he or she has been legally committed.
- Anyone fleeing from custody under a pending trial.
- Anyone tried or sentenced in absentia or by default.

It should not be forgotten here that any citizen obliged to carry out an arrest, even if he or she is a law-enforcement officer, is not a member of any state security force or corps, whereby:

- He or she should give due grounds for the arrest⁴³.
- He or she will hand over the arrested person and all effects thereof to a competent state security force or corps immediately, given that he or she is not entitled or empowered to take any further proceedings. Anyone making a citizen's arrest who then fails to hand over the subject as soon as possible to the competent authority may incur in criminal liability.⁴⁴

- *Arrest by law-enforcement officer or judicial police officer:*

- All the above cases.
- Anyone under judicial investigation for a crime penalised under the Spanish Penal Code with a sentence higher than a correctional or minor custodial term (six months to three years).
- Anyone under judicial investigation for a crime penalised with a minor custodial term if their background or the circumstances of the event suggest that he or she will not appear when summoned by the court (barring anyone who furnishes a sufficient bail, which makes an appearance more likely when summoned by the judge or court).

41 Article 490 to 492 of the LeCrim

42 Article 520 LeCrim.

43 Article 491 LeCrim

44 Chapter XX of the Spanish Penal Code . On unlawful arrest.

- Anyone in the above case, even if not yet accused, if any of the following circumstances obtain:
 - > That there are reasonable grounds for believing in the existence of an event or act that has the characteristics of a crime.
 - > That there are also reasonable grounds for believing the person to be arrested of being involved therein.

The constitutional rights of the arrested person, as laid down in the LeCrim,⁴⁵ are the following:

- Instant communication to the subject of the grounds for his or her arrest in a comprehensible way and of ensuing events.
- The right to keep silent, refusing to answer any questions made or declaring that he or she will answer only to the judge.
- Right not to declare against him or herself and not to confess culpability.
- Right to designate a lawyer and request the presence thereof during police and judicial questioning and declarations and intervention thereof in all processes of recognition of identity. If the arrested person does not designate a lawyer, an ex officio lawyer will be appointed.
- Right to inform a relative or any desired person of the arrest and place of custody. Foreigners will be entitled to communicate the aforesaid circumstances to the consular office of their country.
- Right to be freely assisted by an interpreter if the apprehended person is a foreigner who does not understand or speak Spanish.
- Right to be checked by the forensic doctor or the legal substitute thereof and, in default thereof, by the doctor of the institute where he or she is being held or a doctor from any other government department.

It is also worthwhile recalling the provisions laid down by the LeCrim on the help to be given by the attendant layer, which will consist of:

- Requesting if need be that the arrested person be informed of his or her established rights and performance of the medical check.
- Request the judicial authority or functionary in charge of the proceedings in which the lawyer has intervened, after conclusion thereof, for declaration or enlargement of any circumstances deemed fitting and the reporting therein of any incident that might have occurred during execution thereof.

⁴⁵ Chapter IV of the LeCrim. Article 520 ff., specifying the particular features pertaining to, among others, the rights of minors or the disabled

- A private meeting with the arrested person after the initial proceedings in which he or she has intervened are over.
- If the arrested person is a minor the lawyer will also be entitled to have an interview with him or her before the proceedings go ahead.

Arrest by forestry/environment officers

In a practical sense law enforcement officers or police officers, members of the FCS, will be entitled to make arrests on all counts. They will of course be empowered to do so as the logical consequence of police investigations.

Forestry and/or environmental officers, usually going under the name of “*agentes forestales y/o medioambiental*” in Spain, which do not form part of the FCSs, will not be entitled to effect an arrest if they hear of an allegedly criminal act. Neither can they do so as a result of any investigations. In such a case they have to communicate if deemed necessary with members of the competent FCSs. They can do so directly to the courts and the public prosecutors’ office, as in fact happens daily. That said, if the crime or case under investigation calls for specific police investigation techniques, or it is necessary to proceed to the police indictment or arrest, evidence-collecting possibilities may be lost meanwhile.

It may also be the case that communication between different bodies may drag out the procedure inordinately, even by months. If these measures finally have to be taken by the FCSs, by order of judges and public prosecutors, an irretrievable time will have been lost.

Like any citizen, however, but also as law-enforcement officers, the *agentes forestales* are entitled, while carrying out their normal duties, to detain individuals about to commit criminal acts or those caught *in fraganti*, with the following caveats:

- They have to give grounds for affecting the arrest⁴⁶
- They have to hand over the detained person and all collected effects thereof to the competent FCS as soon as possible, since they are not empowered to take the process forward from there. If this is not done within the shortest possible time, the arrester may occur in criminal liability.

By way of example, without detriment to agreements and working procedures, a forest fire caused by a power line could be investigated and sent straight to the judge with no police mediation, if it be agreed that detention or indictment of the alleged perpetrator is not necessary, given that the technical report could be written by a qualified *agente forestal* and the rest of the report of the alleged offence perhaps does not call for the use of specific police techniques. This aspect is important because, if the judge should later ask the FCSs to enlarge the investigation, any delay could impair the whole process.

⁴⁶ Article 491 LECrim

Could forestry officers, as part of their duties, arrest a poisoner or a poacher caught *in fraganti*? The legislation suggests they can, providing they inform the subject they are under arrest and will be handed over to the FCSs together with all his or her effects (weapons, wire snares, traps and any game species), all of which, together with a photographic report will give rise to a valid judicial procedure, immediately recurring to said FCSs⁴⁷. It will then be the responsibility of the FCSs to take an official declaration from the officers in question or read their written report. From then on they will also be responsible for guaranteeing the arrested person's rights and constitutional guarantees and any other safeguard.

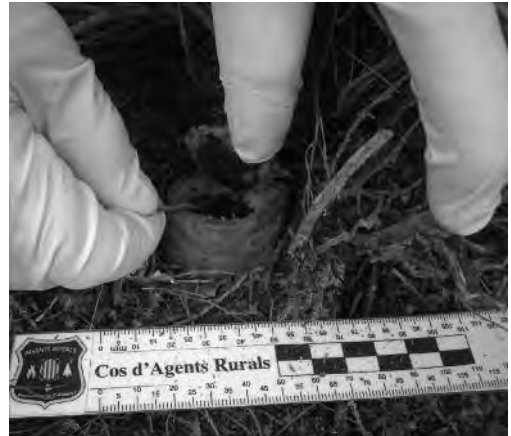
Brief notes on *Habeas Corpus*

In this nutshell account of the legal concepts of the arrest procedure, some passing mention must be made of the concept of *Habeas Corpus*⁴⁸, which could be summed as the procedure to protect citizens from unlawful confinement procedures, when the arrest procedure was unlawful per se or improperly conducted.

The arrested party him/herself or any of the persons entitled to initiate the procedure can appeal to the examining judge to remedy any ostensibly irregular situation, the decision then being handed down within a deadline of twenty four hours.

In brief, for the uninitiated reader, the Spanish Constitution obliges the legislator to ensure by means of this procedure that anyone considered to have been unlawfully detained, thereby breaching the rights inherent thereto as an arrested person, or in an irregular situation, is entitled to invoke these circumstances in the briefest period of time and with the essential formalities before the examining judge to remedy the ostensibly unlawful situation. This can be done directly by the arrested subject or any third parties entitled to do same.

The judge will then weigh up the situation and may decide between freeing the arrested person, changing the place or persons of his or her custody or any other circumstance, or, on the contrary that there has been no irregularity in the situation and it does not therefore need to be changed.



Forestry and environment officers act as essential judicial police in the investigation of wildlife crime © ARurales Cataluña.

⁴⁷ Emergency telephone 112 / Guardia Civil 062 for the whole national territory.

⁴⁸ Article 17.4 of the Spanish Constitution, regulated in Ley Orgánica 6/1984 of 24 May.

The concept of the non-arrested indicted suspect

Ley Orgánica 38/2002, of 24 October, popularly known in Spain as the “*Ley de los Juicios Rápidos*” (Rapid Trial Law) phased into the LeCrim the concept of the non-arrested indicted suspect (*imputado no detenido*) as a police procedure⁴⁹. The officer of the FCSs, in the course of his or her investigation, concludes that the suspect has a degree of participation in the act and expressly summons same to take his or her declaration, but the person concerned is at no point arrested. This subject is therefore never deprived of liberty, whereby:

- The *imputado no detenido* has no obligation of appearing at the police constabulary.
- The summons should be made in writing whenever possible, or otherwise a written record thereof shall be left, the indicted person receiving a copy thereof with the signature or such circumstances as may be relevant thereto. The interested party’s copy will record the obligation of appearing before the judge when summoned for that purpose.

A lawyer must once more be present when the subject’s declaration is taken, to ensure observance of the constitutional rights pertaining thereto:

- The subject must be informed of the grounds for his or her indictment, in such a way as to make this comprehensible to him or her.
- The right not to declare, not to declare him/herself guilty, to reserve the right to declare only before the judge or not to answer one of several questions put to him or her.
- Right to designate a lawyer to accompany and help him or her in police procedures or, in default thereof, to be appointed an ex officio lawyer.
- Right to be helped by an interpreter in the case of foreigners who do not understand Spanish.
- In the case of foreigners, right to have the embassy or consular office in Spain informed of the indictment.

Search warrants. Phone tapping⁵⁰

The inviolability of the home and the secrecy of communications are fundamental rights under the Spanish Constitution and are given the highest degree of protection under Spain’s legal system. Public functionaries are especially bound to respect these rights, and any breaching thereof has been specified as a crime.⁵¹

⁴⁹ See the work: Burgos Ladrón de Guevara, J. *Diario La Ley. Número 5.864. Sección Doctrina*, 6 October 2003. Editorial La Ley. *La determinación del imputado en el sistema procesal español por la Ley Orgánica 38/2002, de 24 de octubre*

⁵⁰ See Title 8 of the LeCrim.

⁵¹ Article 18 of the Spanish Constitution. See also Title 21, Section 1 of the *Spanish Penal Code* (On crimes committed by public functionaries against the inviolability of the home and other guarantees of privacy).

We need to pause an instant to look at the concept of home⁵², which has to be construed in a broad sense since the Spanish Constitution does not offer a definition thereof. We might agree a priori that the home is *“any enclosed site, movable or immovable, which serves as the scenario for the individual and family-based family life, permanently or temporarily, or the private professional activity of natural or legal persons”*.

In our field of action it is frequent for citizens to invoke any private property as their home. This is acceptable insofar as any citizen is clearly entitled to make such pleas as he or she might deem fitting and, as already pointed out, it would be best for a written record to be made thereof. Environmental law-enforcement officers are therefore bound to be perfectly cognisant of applicable legislation and of the *modus operandi* in each case, as we will see later, when carrying out their inspection or investigation duties, as the case may be.

Without getting bogged down in the details of the LeCrim⁵³, and focussing on our own particular sphere of action, we could cite several examples of enclosed sites that constitute a home, such as:

- Motorhomes, in the part fitted out as a home and also tents.
- Hotel rooms, when occupied.
- Registered head offices of companies or professional offices.
- Private backrooms of establishments open to the public.
- Country cottages used as temporary dwellings.
- Inner gardens hidden from outside view.

Sites, on the contrary, that cannot be considered to be homes include:

- Storehouses and toolsheds.
- Warehouses, including the part used as offices.
- Garages, providing they are free standing with no direct access to the home.
- Any public establishment (in the part of the premises open to the public and within opening hours).
- Estates, which do not even constitute an enclosed space.
- Vehicles and driving cabs of motorhomes. Special mention of the sleeping quarters in articulated lorries.

The term “enter and search” is not applicable to the above cases, but rather inspection, of which a due record will be kept as already pointed out, mentioning samples and evidence taken, pho-

⁵² See, among many others, Judgement of the Supreme Court (STS) 436/2001 of 19 March, Judgement of the Constitutional Court (STC) 10/2002 of 17 January or STC 69/1999 of 26 April

⁵³ LeCrim. Title 8. Arts. 545 ff.

tographic report and written report. Due grounds must also be given for such an inspection, with a sufficient explanation of the purpose thereof.

Two alternative situations might obtain when it comes to entering the home of a natural or legal person:

- *With the consent of the dweller:* The dweller might give his or her consent for an entrance to be made into an enclosed compartment considered for these purposes to be a home. The following caveats should be taken into account:
 - Consent will be given expressly in writing in a report written for that purpose.
 - Entrance into the dwelling will be made in the presence of the consent-giving dweller plus, where possible, two witnesses.
 - Consideration will be given to the same methodological precautions as in an on-the-spot visual inspection.
 - The dweller is entitled to withdraw his or her consent at any moment he or she deems fitting. This would then have to be duly recorded and the search called off forthwith.
 - Nonetheless, the potential evidence and samples found up to his moment will be duly labelled, taken into custody and sent to the requisite destination, being valid for the whole procedure thereafter.
- *The search warrant:* Whenever there are solid grounds concerning the assumed perpetrator of the acts, important potential evidence of the alleged crime likely to be found in the home, the judge, giving grounds for his or her decision, may decide to grant a search warrant. Among other provisions laid down in the LeCrim, the most important pertaining to the searcher are the following:
 - The examiner in the police procedures will request the warrant by means of an application with grounds, setting out all relevant background information and the reasons indicating the need for entering and searching the home.
 - Further considerations on the grounds given in the application will be made later; for now, we do need to stress the importance of the veracity and accuracy of the information contained therein to ensure the case will not be thrown out on formalities later.
 - The court secretary will be present throughout the whole search to vouch for the correctness of the procedure.
 - The search will be carried out in such a way as causes least harm and nuisance to the dweller, avoiding useless inspections.
 - The dweller or his or her representative will be present throughout the search and two witnesses should ideally also be present.⁵⁴ The absence of the arrested dweller, according to repeated case law of the Supreme Court (*Tribunal Supremo*), will be grounds for nullity later.

- If the dweller has been arrested, he or she is entitled to give his or her consent for the search without the need for a search warrant, in the presence of his or her lawyer, his or presence then not being obligatory during the search, though it is advisable.⁵⁵
- As for the *serendipitous finding* of effects, potential evidence or samples pertaining to crimes other than that motivating this particular search, some case law⁵⁶ considers that this find does not interfere with the normal development of the search in question, unlike the phone-tapping situation. In practice, however judges and court secretaries tend to have their misgivings, favouring a suspension of the search and the start of a new case-examination procedure and the request for a new search warrant to rule out the possibility of the case being thrown out later.

Phone tapping for its part⁵⁷, is a procedure that technical and telematic means have changed radically in recent years. The LeCrim⁵⁸ speaks of “*the detention of private, postal and telegraphic communication*” and also the “*tapping of phone communications, providing there are grounds for the likelihood of thereby discovering or proving an important fact or circumstance in the case*”. This term has now fallen behind the times. The interception of emails now needs to be phased into the concept plus other telematic applications.⁵⁹

Interventions and tapping of this type have obviously turned out to be decisive in clearing up many crimes. Nonetheless, it should also be borne in mind that this procedure clashes with the concept of the right to intimacy of any person and his or her relatives and there is always some doubt about where the balance should be struck. The upshot is that warrants for phone tapping and communications interception are restrictive and great care should always be taken in implementing them.

It is without doubt an efficient means of investigation but also technically difficult to carry out and likely to incur in procedural vices that might lead to the dreaded result of the evidence thereby obtained being thrown out later. The media are constantly reporting examples of cases involving phone tapping that are then thrown out later in the process.

It is well worthwhile here giving serious consideration to the comments on phone tapping made by STS 4/2010 of 28 January 2010⁶⁰:

“Regulatory guidance on phone tapping has been largely laid down by case law given the shortfalls of the legislation laid down in article 579 of the Ley de Enjuiciamiento Criminal. We could enumerate, in general, the procedures to follow to ensure later validity of phone-tapping evidence.

54 Among others, STS 1241/2000 of 6 July, 1417/2001 of 11 July or STS 183/2005 of 18 February

55 STS of 11-12-98, 21-1-99 and 4-3-99

56 STS 315/2003 of 4 March, recording the case law of previous judgments

57 Article 579 ff. LeCrim.

58 Article 579.

59 See for this purpose STS 99/2010 of 16 February.

60 Doctrina Jurisprudencial de la Sala de lo Penal. Año Judicial 2009-2010. Tribunal Supremo. Sala Segunda. Gabinete Técnico. (Case law of the Penal Chamber. Judicial Year 2009-2010. Supreme Court. Chamber Two. Technical Cabinet November 2010.

Criteria:

- a) Exceptionality. Avoiding knee-jerk responses.*
- b) Essentialness or need.*
- c) Due weighing up of any interests in conflict.*
- d) Subsidiarity. Less aggressive investigation methods.*
- e) Proportionality, legality, cataloguing of crimes.*

Judicial control:

- a) Judicial enablement. Due grounds.*
- b) Duration of the measure. Reasonable time.*
- c) Periodical check of the progress of the phone-tapping arrangements*
- d) Literal transcription thereof under supervision of the secretary.*
- e) Tapes to be heard by examining judge.*
- f) Sending original tapes to the examining judge.*
- g) Negation of the authentication of the voices. Expert evidence. When to apply for same.”*

In other words and without going into the minutiae of the LeCrim, the investigator will pay close attention to all the following when requesting phone tapping:

- *Grounds:* As in the search warrant procedures, the interception of mail, phone calls or telematic communications is granted by a warrant from the judge, again with due grounds for same; this will normally have been applied for by the examiner of police procedures. Special care has to be taken when specifying the grounds.
- *Concretion vs. Abstraction:* The data and grounds put forward should be as concrete and specific as possible. Any interceptions based on faulty grounds are likely to be thrown out as evidence later. Furthermore, the failure to be specific could give the impression of a “look and see” search to make up for lack of evidence elsewhere.
- *Lack of any investigation methods less burdensome to personal privacy:* Failure to show this is one of the commonest grounds for turning down the warrant application or throwing out the phone-tapping evidence later. Both police procedures and the warrant application have to show that a wide-ranging investigation has been carried out and that the interception is necessary in the interests of gleaning new information for clearing up the crime concerned.
- *Precision:* The restrictive criteria obtaining in this measure and procedural demands later call for precision and specificity when applying for the warrant.
- *Duration:* Although the LeCrim lays down a deadline of up to three months for interception of communications, such warrants are usually capped at fifteen days or one month, with successive extensions thereof if need be by means of a new warrant.

- *Scope:* It is not always a case of full-out phone tapping or interceptions of mail or email. Sometimes it will suffice to request the name of an account holder, of an IP address of a computer or of a list of calls. This information could be conclusive or could serve as the basis for future warrant applications.

Real case: See Judgment 229/09, of *Juzgado de lo Penal* (Criminal Court) 1 of the *Audiencia Provincial* of Huelva, convicting two individuals of the crimes of hunting outside the legal season, holding unlawful arms with the serial number deleted, receiving shot and specimens civil liability for same, all on the basis of an investigation led by the *SEPRONA* investigation team of the Command of Huelva, with investigation methods involving phone tapping and home searches in liaison with the delegated prosecutor of the environment and town planning (*Fiscal Delegado de Medio Ambiente y Urbanismo*).

Real case: The recent Judgment 206/2013 of 19 July of *Juzgado de lo Penal* 4 of the *Audiencia Provincial de Navarra* resulted in the conviction of three people as president, treasurer and warden of a hunting ground. It was proved that in 2011 they laid down bait steeped in Fenthion in an area frequented by raptors, doing so during the carnivore breeding season after the end of the hunting season with the aim of avoiding ostensible damage to game species hunted therein. The regional police force had previously found carcasses of seven Marsh Harriers. In this case, involving obvious damage to a threatened species, a crucial part was played by proof of the economic profit sought in this action, which came to light in intercepted phone calls. A prohibited firearm was also seized.

Operational considerations of the investigation of wildlife crime. Connection with other types of crime. Investigation means. Circumstantial evidence⁶¹

Anyone investigating a wildlife crime is duty bound to address the case in the best possible way, compiling all data that comes to light, helping government officers, requesting reports and being capable of bringing home to others the importance of the crime and explaining the need for the investigation means sought. All this has to be carried out with the strictest observance of all procedural criteria. This will on some occasions lead to the discovery of acts that turn out to be more serious than first thought and on other occasions not even deserving a light administrative penalty.

Proceeding, therefore, with an open mind, the investigator should ask him or herself the following questions:

- *Did the poison originate in the same place where the carcass was found?* “Long-distance poisoning”. To get to the perpetrator of the crime we need to locate him or her in time and space. It is therefore crucial to ascertain whether the poison originated in the place where the carcasses or baits turned up or whether, on the contrary, it is a question of the delayed effect of bait ingested kilometres from the actual place of death.

⁶¹ See Fajardo, I. and Martín, J. (Coordinators) 2009. Manual para la protección legal de la biodiversidad para agentes de la autoridad ambiental en Andalucía. Consejería de Medio Ambiente. Junta de Andalucía.



The use of poisoned-baits is associated with other mass-killing, indiscriminate methods such as traps or nets. © SEPRONA Huelva

- *Are there any connections with other crimes?*
 - *Precedents*⁶². All necessary archives will be checked to find precedents of similar events, same products, *modus operandi*, etc.
 - *Poison-Other indiscriminate hunting methods*. The perpetrator of any poisoning episode is also likely to use other methods to exterminate the “target species”⁶³.
 - *Forest fires*. It is not infrequent for members of the hunting community to resort to fire as a hunting method or means of revenge, etc.
 - *Crimes against heritage*. Economic damage for owners and managers of hunting grounds. Buying and selling of hunting trophies.
 - *Unlawful possession of arms*. Illegal weapons are often used in wildlife crimes, instead of the perpetrator’s legal arms, to thwart later ballistic studies.
- *What risks to public health have been produced? Has the physical integrity of persons been jeopardised? Crime against public health.*
 - *Possibility of the toxins passing into the human food chain*. In the past we have found and removed thousands of items of poisoned-baits from sites like recreational areas or

⁶² Special mention must go to the magnificent work carried out by experts of the Estrategia Andaluza contra el Veneno in drawing up the “Mapa Andaluz del Veneno” (Andalusian Poison Map), a fundamental tool in the investigation of poison cases by environmental law-enforcement officers in Andalucía.

⁶³ Although not part of the remit of this Chapter, mention must be made of the fact that this term of “target species” is being used in a loose sense since, precisely due to the indiscriminate nature of these methods, the actual species affected can never be specified beforehand

around the gates of schools, posing an obvious ingestion or intoxication risk due to the powerful toxicity of the products used.

- *Possibility of contaminated meat or fish (salmonella, brucellosis, toxins) from poaching products being eaten in public establishments.* The combination of poison with rapid transmissibility and hunting species eaten by human beings can turn out to be lethal in many of the products used.
- *Has the alleged perpetrator obtained any type of economic profit from the acts? Can we show this?* Hunting as an activity turns over a huge amount of money. A profit motive should therefore always be considered when investigating any wildlife crime, especially when poison is used. When several sectors are involved, such as livestock farming, crop farming or bee-keeping, profit seeking should be firmly borne in mind as the possible motivation of the poisoning episode.
- *What is the assessment of the damage caused? Civil liability.*⁶⁴ Assessment of the species affected, the knock-on effect on conservation programmes, etc. provide new arguments showing the importance of the crime under investigation. This will be enlarged upon in the section on reports, though it must be pointed out that this will call for technicians and expert witnesses from government authorities.

If we look back reflectively, we will certainly be able to remember cases in which posing the abovementioned questions would perhaps have led to a different conclusion.

It is obviously our duty to gather all this information and bring it to the notice of judges and prosecutors. Furthermore, all this information, plus the information held in technical and analytical reports, will enable us to make well-grounded applications for investigation methods such as the aforesaid search warrants and authorisation for phone tapping.

At the same we need to make another reflection about the arrest. Technically, we will weigh up whether the best way forward is arrest or indictment,⁶⁵ depending on the circumstances in each case and of each person.

One of the most widespread operational errors of investigators is perhaps the desire to close the case too quickly, arresting the alleged perpetrator. Precisely when the investigation has built up a great amount of solid indications of a case to answer, the rest of the circumstances of the case might impel us over-hastily to this end.

But we should always bear firmly in mind that, once the arrest has been made, our leeway for operation is much smaller, while the potential evidence we have already amassed will last throughout the whole investigation. The overriding operational criteria should be patience and, as already pointed out, open-mindedness.

⁶⁴ Witness the recent Judgment number 150/2013 of 6 June of the *Audiencia Provincial de Jaén, Section 1*, amending Judgment of Criminal Court number 1, convicting two people as co-perpetrators of a crime under article 336 of the *Spanish Penal Code* for death by poisoning of an Iberian lynx in Andújar.

⁶⁵ The option of *imputado no detenido* has proven to be extremely useful when dealing with environmental crime, as recorded in the latest reports of the public prosecutor's office, especially in the case of imprudent forest fires, contamination, etc.

On the above lines, focussing on *circumstantial evidence*, the case law of the Constitutional Court (*Tribunal Constitucional*) has reiterated the need for complying with the following requisites:⁶⁶

- *Concurrence of more than one indication of a case to answer or a single indication of special significance.*
- *Need for the indications to be proven.*
- *Precise and direct link between the indications and the alleged act.*
- *Non-existence of counter-indications.*
- *Non-existence of alternative explanations for the concurrence of the indications of a case to answer.*
- *Grounds for the resolution.*
- *Due input of the indications to the overall procedure.*

Particularly in poisoning cases, we usually start the investigation after the crime has been committed. This obliges us to effect a reconstruction of events. As we are at pains to point out here, this is an extraordinarily laborious task, often with very little to go on. Even when the perpetrator of the act has been caught *in fraganti* this is often a consequence of this previous build-up of potential evidence.

In short, the investigator should try to overcome the assumption of innocence by moving on from mere suspicions to real indications of a case to answer, valid as evidence in a court hearing. According to the case law of the *Tribunal Supremo*⁶⁷:

“Indications of a case to answer are more than mere suspicion. Suspicion is merely a hunch; an indication is a rational piece of potential evidence, which has to be based on objective information to be understood as such. This objectiveness is twofold: firstly it has to be accessible to third parties, otherwise it cannot be properly monitored; secondly it has to provide a real basis for inferring the existence of valid evidence for the crime under investigation in the proceedings being authorised”.

The investigation itself, as it develops, will either bear out these first suspicions or belie them, whereupon the investigation will turn to other possibilities.

Intervention of the environmental law-enforcement officer. Duties and liaison

Spain's police system is developed by constitutional mandate⁶⁸ under the Security Forces and Corps Law 2 of 13 March 1986 (*Ley Orgánica de Fuerzas y Cuerpos de Seguridad: LOFCS*)⁶⁹. This law lays down the composition of security forces and corps (FCS in Spanish initials), their main principles of action, their specific regime and common statutory provisions; it defines and delimits their remit, their territorial demarcations and forms of liaison between them, as the main aspects.

The judicial police (*policía judicial*), for their part, are also defined in the Spanish Constitution (article 126) and defined in terms of concept, dependence, duties, formation, etc. in the LOFCS itself,

⁶⁶ Among other earlier ones, STC 109/2002 of 6 May; 135/2003 of 30 June; 186/2005 of 4 July.

⁶⁷ STS 717/2010 of 22 June 2010.

⁶⁸ Spanish Constitution. Articles 104, 148.1.22 and 149.1.29.

⁶⁹ Hereinafter LOFCS.

in the LeCrim. (articles 282 to 298 and 786), in the Judiciary Law 6/1985 (*Ley Orgánica del Poder Judicial*) (arts. 443 to 446), in the Statute of the Public Prosecutor's Office (*Estatuto del Ministerio Fiscal*) and in Royal Decree (*Real Decreto*) 769/1987, on the regulation of the judicial police.

This legislative diversity has to be analysed briefly, but clearly and concisely, in order to reach final conclusions from two viewpoints:

From the LOFCS viewpoint:

The LOFCS establishes the country's police forces as the state security forces and corps (*Fuerzas y Cuerpos de Seguridad del Estado*: FCSE)⁷⁰, formed by the National Police force (*Cuerpo Nacional de Policía*) and the *Guardia Civil*, the regional police forces of the CCAA and the local police forces (*Policías Locales*). There is also the case of assignment of units of the *Cuerpo Nacional de Policía* to those CCAA that are entitled to set up their own police force under their regional government charter (*Estatuto de Autonomía*) but have not actually gone ahead and done so.

Spain therefore has the following police forces:

- The *Cuerpo Nacional de Policía*.
- The *Guardia Civil*.
- The regional police forces: *Mossos d'Esquadra* in Catalunya, *Ertzaintza* in the Basque Country and the *Policía Foral* in Navarre.
- Units of the *Cuerpo Nacional de Policía* assigned to CCAA such as Galicia, *Comunidad Valenciana* and Andalucía.
- The local police forces (*Cuerpos de Policía Local*) in local authorities that have set them up.

The LOFCS⁷¹ also lays it down that, within the FCSEs, it is the *Guardia Civil*'s remit to "Look out for compliance with provisions on nature- and environment-conservation, hydraulic resources and also hunting, fishing and forestry resources and those of any ilk related to nature throughout the whole national territory and its territorial sea". This remit is also shared⁷² by regional police forces, doing so "simultaneously and indistinguishably with the FCSEs", within their regional territory.

In short, as police forces, the environmental portfolio is held by the *Guardia Civil* and the regional police forces (*Policías Autonómicas*), including the devolved units of the *Cuerpo Nacional de Policía*, without thereby ruling out collaboration from other police forces as members of the general judicial police.

*From the judicial police viewpoint*⁷³:

The term "police" in any democratic state run under the rule of law like Spain has a twofold sense. Firstly, there is the sense of *prevention*, whereby the state exercises its functions of pro-

⁷⁰ Hereinafter FCSE.

⁷¹ See Title II of the LOFCS

⁷² See Title III of the LOFCS.

⁷³ See the magnificent work: Fernández Rodríguez, I. *Boletín de Información del Ministerio de Justicia en España. Año 2007. Número 2.039. La Policía Judicial como función de investigación y su ejercicio por funcionarios no pertenecientes a las Fuerzas y Cuerpos de Seguridad. El caso de los Agentes Forestales.*

tecting its citizens and watching out for compliance with the law and the rules of coexistence, before the crime is committed. This falls into the concept of government-run administrative police and the keeping of law and order.

On the other hand there is *repression*, whereby the state investigates the crime with the purpose of punishing the guilty party and forestalling the perpetration of other crimes. This brings us into the field of judicial police, run functionally by courts, judges and prosecutors.

Article 282 of the LeCrim runs as follows: “*The judicial police is responsible for looking into public crimes committed within its territory and to carry out the necessary procedures, remit permitting, for investigating same and ascertaining the guilty criminals, taking into safe custody all effects, instruments or evidence of the crime as might be in danger of disappearing and placing them at the disposal of the judicial authority. This responsibility is incumbent as a duty on all members thereof*”.

In its article 283, the LeCrim lays it down that “*The judicial police will comprise all those listed below, set up to aid competent criminal courts and judges and the public prosecutor’s office, with the obligation of following such instructions as may be handed down by said authorities in terms of the investigation of the crimes and prosecution of the criminals:*

1. *The administrative authorities in charge of law and order, of the prosecution of all crimes and some special ones.*
2. *The employees or subordinates of the security police, whichever name they may go under.*
3. *Mayors, deputy mayors and neighbourhood mayors (Alcaldes de Barrio).*
4. *Chiefs, officers and individuals of the Guardia Civil or any force designed to prosecute wrongdoers.*
5. *The warders and watchmen and other municipal agents of urban or rural police.*
6. ***Wardens of the countryside, fields and arable land, sworn in or confirmed by the government.***
7. *Functionaries of the Special Prison Corps (Cuerpo especial de Prisiones).*
8. *Judicial agents and subordinates of courts of law.*
9. *Personnel of the Highway Authority (Jefatura Central de Tráfico) in charge of the technical investigation of road accidents.”*

This rather ancient definition of judicial police, in which a great variety of public posts and functionaries were duty bound to collaborate with the justice authority, has fallen behind the times. As regards environment and forestry and environmental officers (*Agentes Forestales* and *medioambientales* or the other names they are given in the various regions)⁷⁴, the modern equivalent of the “wardens of the countryside, fields and arable land, sworn in or confirmed by the government”, the Forestry and Countryside Law 43 of 21 November 2003 (*Ley de Montes*), defines the *Agente Forestal*

⁷⁴ This term in Spanish (*Agentes Forestales*) is used in keeping with the Forestry and Countryside Law (*Ley de Montes*); some go under other names. They are *Agentes Forestales* in Madrid, *Agentes de Protección de la Naturaleza* in Aragón, *Agentes Medioambientales* in Castilla la Mancha, *Agentes Rurales* in Catalunya and *Agentes de Medio Ambiente* in Andalucía.

as a “law enforcement officer belonging to the government authorities who, according to regional legislation..., has the remit, among other duties, of the policing and custody of legal goods of a forestry nature and the function of **judicial police in a generic sense** ...”. It also stipulates that “Agentes forestales y medioambientales, in carrying out their remit, **shall act in a coordinated fashion with security forces and corps in due accordance with their overarching legislation**”⁷⁵.

Finally it should be noted that the LeCrim⁷⁶, LOFCS and the *Real Decreto* (Royal Decree) of the judicial police all distinguish between the concepts of generic judicial police (broad sense) and specific (restricted sense). The police functionaries posted in the so-called *unidades orgánicas* (organic units)⁷⁷ are thus granted the crime-investigation remit and specific means under the orders (functional dependence) of courts, judges and prosecutors.

What distinguishes these police functionaries from other police forces is that, regardless of the body they belong to, they are bound, within their remit, to carry out the first crime-investigation procedures.

From all the above it naturally follows that environment officers do undoubtedly have a law-enforcement capacity in carrying out their duties and that what the law intends by granting them the status of generic judicial police is to *give procedural validity to the measures they may take in the strictly environmental sphere*, such as:

- Investigations into the causes of forest fires.
- Removal of carcasses, collection of potential evidence and maintenance of the chain-of-custody.
- Handover of potential evidence to the criminal-investigation services of the competent police forces.
- Drawing up reports at the behest of courts, judges and prosecutors.
- Drawing up reports of the alleged offence (*atestados*) within their particular remit.

Right at the start of this chapter we stressed the need for strict compliance with all established procedures from the word go, given the initial uncertainty about whether investigations will lead to a criminal or administrative case, an outcome that sometimes turns on fine detail. It is logical for environment officers to have this character of generic judicial police, since they will take the first steps therein either single-handedly or in combination with members of the FCSs, undertaking the first crime investigation tasks and taking effects into safe custody. Their declarations will therefore have procedural validity, even in the form of expert evidence in the case of forest fires.

They therefore also have the same degree of legal protection as the members of the FCSs, in terms of any attack against law-enforcement officers when carrying out their duties⁷⁸.

⁷⁵ Amended by Law 10/2006 of 28 April reforming *Ley 43/2003 de 21 de noviembre sobre montes*, articles 6 and 58.

⁷⁶ Crucial here is Article 285 of the LeCrim.

⁷⁷ According to the LOFCS these Unidades Orgánicas of the judicial police belong to the FCSE, whereas the rest of the members and the regional and local policeforces are deemed to be collaborators. Nonetheless, the regional government charters (*Estatutos de Autonomía*) and the assumption of law-and-order responsibilities by the policeforces have updated this concept.

⁷⁸ Articles 550 to 555 of the *Spanish Penal Code*.

To conclude this section it is necessary to add that the Spanish Constitution and the law⁷⁹ oblige the various government authorities to comply with working protocols that respect the competences of each body, as when dealing with forest fires in the CCAA of Andalucía⁸⁰, doing so according to such factors as efficacy, efficiency in the use of public resources, collaboration, cooperation, good faith and legitimate expectations.

It has been widely shown that sharing of the resources of FCSs and *Agentes* (environment/forestry officers), frequent communication between them and joint action, far from impairing either of the two corps, enhances their common prestige and the main end in view, which is no other than conservation of the environment and investigation-based damage avoidance.

It is clear that an overhaul of the LeCrim is on the agenda at the moment; the government has also recently expressed its intention of making other legislative changes to stipulate the real powers of environmental law-enforcement officers.

This legislation change is considered to be essential, though it is unlikely to achieve much unless every crime-investigation stakeholder is brought into the conservation fold. Collaboration and liaison, insofar as each is empowered to act, can bring about quite spectacular results, as experience has shown.

Witness the joint action of environment officers and *SEPRONA* in cases as headline-grabbing as the conviction of two people for poisoning an Iberian lynx in Andújar (Jaén),⁸¹ the conviction of a livestock farmer in Sierra de Castril (Granada)⁸² for a continuing Bearded Vulture poisoning offence or the conviction of two people after a find of over one hundred items of poisoned-baits in the hinterland of Doñana (Huelva)⁸³. All these cases involved the participation of people and resources of the two authorities with exemplary liaison and will to work together. This favoured solution of the cases, with a crucial role being played too by delegated public environment and town-planning prosecutors.

As far as training goes, there have now been joint syllabi on technical and procedural investigation,⁸⁴ with excellent results. But this ongoing top-up training is unlikely to replace a basic period of induction training for all environmental law-enforcement officers, regardless of the body they belong to.

79 Administrative Procedure Law 30 of 26 November 1992 (*Ley del Régimen de las Administraciones Públicas y del Procedimiento Administrativo Común*).

80 Protocol on liaison for members of the state security forces and corps, armed forces and other measures provided for in Plan Infoca of the *Comunidad Autónoma* of Andalucía, of 2 August 1995. Junta de Andalucía and *Delegación del Gobierno en Andalucía*. A protocol is currently being drawn up for procedures and coordination in wildlife and poisoned bait crimes between environment officers and the Guardia Civil-SEPRONA.

81 Judgment number 150/2013 of 6 June of the *Audiencia Provincial de Jaén*, Section 1, amending the Judgment of criminal court number 1.

82 Judgment number 39/2010 of 27 January 2010. Other procedures underway. The appearance of poisoned Lammergeiers seriously jeopardised the reintroduction programme of this species in Andalucía; this prompted a joint *Plan de Choque* (emergency plan) between the Guardia Civil and the *Junta de Andalucía*. These actions involved, among other methods, hidden stake-outs, inspections with dog units, home entrances under search warrant, taking of livestock blood samples and genetic comparison thereof with the baits. It involved the intervention of the Advanced Forensic Unit (*Unidad Forense Avanzada*: UFOA), comprising expert technicians and environment officers to support Provincial Delegations and SEPRONA and the Malaga-based *Centro de Análisis y Diagnóstico de la Fauna Silvestre* (CAD).

83 Judgment number 36/2012 of 29 March (Rapid Trial), of the Examining Court (*Juzgado de Instrucción*) number 1 of Huelva.

84 Mixed training course in the *Comunidad Autónoma de Andalucía* for environment officers and SEPRONA on investigation of wildlife and poisoned-bait crimes.

Conclusions

Any talk of criminal investigation in wildlife and poisoned-bait crimes would no doubt have seemed farfetched and pretentious only a few years ago. The first trailblazing step was taken as recently as 1998, when several environmental organisations persuaded the Guardia Civil to draw up a carcass-removal protocol. A few months ago, as already pointed out, *SEPRONA* approved a procedure that is already light years ahead of that first document, groundbreaking as it was at the time.

Much the same goes for the publication in 2004 of the National Strategy against Illegal Use of Poisoned-baits in the Countryside (*Estrategia Nacional de Lucha Contra el Uso Ilegal de Cebos Envenenados en el Medio Natural*) or the creation of a Division Prosecutor Delegate in Environmental and Town Planning Matters (*Fiscal de Sala Delegado de Medio Ambiente and Urbanismo*), and Delegated Public Prosecutors (*Fiscales Delegados*) in the *Audiencias Provinciales*, as well as specific actions in some CCAA, such as the actions taken by brigades of *Agents Rurals* in Catalunya, the Wildlife Poisoning Investigation Brigades (*Brigadas de Investigación de Envenenamiento de Fauna*) and the Forensic Support Unit (*Unidad Forense de Apoyo*) in Andalucía or the Poison Investigation Unit (*Unidad de Investigación de Venenos*) in Castilla La Mancha.

In these difficult times from an economic point of view we need to take stock and realise that our predecessors would not have imagined the present technical and legal resources in their wildest dreams. It would have seemed science fiction only twenty years back.

Many people from diverse fields have dedicated much of their lives to this task, forestry officers, police forces, government experts and technicians, environmental organisations, judges and prosecutors. Different responsibilities, different duties and powers but with a single objective: to preserve biodiversity and enforce the law.

At the hub of the process stood a single concept that imbued all the rest, i.e., COLLABORATION: Coordination-Cooperation-good faith and legitimate expectations. Sadly, these concepts have yet to be taken on board in some parts of our country.

We speak from experience. We speak from the deep conviction that mistrust is bred only by ignorance. We are equally sure that by working together and pooling all our resources we will increase our joint effectiveness exponentially.

Some of us, certainly, no longer know any other way of working.

Chapter IX

ADMINISTRATIVE PROCEEDINGS

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It goes well beyond the remit of this chapter to attempt an analysis Spanish region by region of administrative legislation on environmental protection and the hunting activity, much of which has already been touched on in earlier chapters. Some references, however, are made illustrating the current degree of regional development and the main legislative arrangements for fighting against the scourge of poisoned-baits.

On perpetration

All Spanish regional legislations and of course state legislation specify the use or placement of poisoned-baits in the countryside as an infringement. The infringement hence exists across the board in administrative proceedings, usually classified as serious or very serious, incurring large fines or other punishments such as closure or suspension of the activity, as shown in Table 6 of Chapter III, which sets out the high punishment levels in Castilla-La Mancha and Andalucía, in comparison to the fines laid down in Aragón, among the lowest in Spain.

It should be pointed out here that even within administrative proceedings the specified offence of the placement or use of poisoned-baits is dealt with in at least two different laws, the hunting-regulation law and the environmental or protected-species law. In this case, unless specific arrangements are made in the law itself, the principle used should be that which allows the biggest penalty. Concurrence of laws is also habitual when, besides the placement of poisoned-baits in the countryside, this placement has been proven to have led to the death of threatened species or even species in danger of extinction, in which case, again unless specifically regulated otherwise, the criterion to follow would be application of the rule of greatest severity.

Duplicated reference to the placement-of-poison infringement in the environmental and hunting legislation of Castilla-La Mancha with specific regulation of the concurrence of legal rules.

Castilla-La Mancha Hunting Law 2 of 15 July 1993 (Ley de caza de Castilla-La Mancha)	Nature Conservation Law 9/1999 of 26 May (Ley de Conservacion Naturaleza)
<p>Article 86.1.7, the following are very serious infringements: <i>“Unauthorised or condition-breaching use of the means described in article 36, a), b), c), d) and e) hereof and hunting with prohibited means that are eligible for authorisation under no circumstances.”</i></p> <p>Specific regulation: None contained, whereby the provisions laid down in article 4.4. of RD 1398/1993 of 4 August 1993, Regulation for exercising the power to enforce penalties (<i>Reglamento para el Ejercicio de la Potestad Sancionadora</i>) are applicable hereto:</p> <p><i>“4. In default of specific regulation laid down in the corresponding legal rule when perpetration of an infringement necessary leads to perpetration of other(s), only the penalty corresponding to the most serious infringement committed should be enforced”</i></p> <p>Penalty: Fine of 500,001 to 10,000,000 pesetas.</p> <p>Withdrawal of licence without the possibility of renewing it for a period ranging from five to ten years.</p> <p>Suspension of the hunting activity for a time ranging from five to ten years.</p>	<p>Article 109.11, serious infringement: <i>“The unauthorised placement or use of poison or bait for capturing or killing wildlife, unless there is no possibility of its affecting threatened species, in which case it will be deemed to be less serious”.</i></p> <p>Specific regulation: Article 115.2 of the Nature Conservation Law 9/1999 of 26 May: <i>“In no case may there be a dual penalty for the same acts and in regard to the same legal goods protected hereunder and by other environmental protection laws. In such a case only the highest penalty* should be enforced after completion of the corresponding punitive proceedings.</i></p> <p>* Note that the specific regulation has opted not for the criterion of seriousness but rather the criterion of the highest fine, whether or not pertaining to the most serious infringement.</p> <p>Penalty: Fine of 25,001 to 100,000 euros.</p> <p>Total or partial suspension of the hunting activity for a period of between six months and two years.</p>

This administrative specification is in turn a copy, a “duplicate” of the penal specification laid down in article 336 of the Spanish Penal Code *“Whosoever, without being legally authorised to do so, should use explosive resources or other instruments or similar wildlife-harming artefacts for the purposes of hunting or fishing will be punished with a prison sentence of four months to two years or eight to twenty four months paying the fine fixed by the judge and, in any case, special disqualification for the activity of hunting or fishing for a time of one to three years. Should the damage caused be notable the upper limit of the aforementioned prison sentence will be enforced”*. The duplication of specified infringements is therefore the first stumbling block to be overcome.

In practice, and necessarily, the principle of the prevalence of criminal proceedings (article 133 of the *Ley 30/1992, de 26 de noviembre, de Régimen Jurídico de las Administraciones Públicas y Procedimiento Administrativo Común*, article 7 RD 1398/1993 of 4 August approving the

Reglamento para el Ejercicio de la Potestad Sancionadora, article 10 *Ley Orgánica del Poder Judicial*, among others) means that there have been very few administrative rulings in punitive proceedings for the placement of poisoned-baits, relegating administration to a second-degree procedure for cases in which, following the constitutional principle of *non bis in idem*:

- There has been a provisional setting aside of articles 641.2 and 779.1 of the Criminal Proceedings Law (*Ley de Enjuiciamiento Criminal*), as we will see later.
- There has been an acquittal on formal grounds that determine absence of declaration of proven facts pertaining to the specific infringement and which might also be binding on administrative procedures.
- There having been a criminal conviction for placement of poisoned-baits but in administrative proceedings there is a possibility of penalising as perpetrator other people not criminally prosecutable (for example tenure holders or leaseholders of the hunting ground). This possibility has been severely limited since regulation by criminal law of the criminal liability of legal persons (article 31.bis Spanish Penal Code).

The Spanish Constitutional Court has ruled that the *non bis in idem* principle forbids the enforcement of a duality of penalties "*in cases in which the subject, act and grounds are found to be the same*" (a uniform line since STC 2/1981, FJ 4). In the words of the court ruling of the Spanish Constitutional Court dated 29 June 1999, "*the guarantee of not being subjected to bis in idem has been laid down as a fundamental right that, in its material manifestations, rules out punishment of the same act or event on the same grounds on more than one occasion (for example, SSTC 159/1985 of 27 November, FJ 3; 94/1986 of 8 July, FJ 4; 154/1990 of 15 October, FJ 3; and 204/1996 of 16 December, FJ 2). Together with this material aspect, this court has also attributed the formal or procedural aspect of this principle with constitutional relevance, ruling that "pursuant to STC 77/1983 of 3 October, (FJ 3) the overriding rule is the preference or precedence of criminal judicial authority over administration with respect to punitive proceedings in those cases in which the acts to be punished could be constitutive not only of an administrative infringement but also of a crime or misdemeanours under the Spanish Penal Code "* (for example, ATC 277/2003, de 25 de julio, FJ 2).

In other words the principle rules out the possibility of administrative punitive proceedings continuing when the acts involved may constitute a crime or misdemeanours under the Spanish Penal Code, until a ruling has been handed down in criminal proceedings. Hence the need for punitive proceedings to be brought and left in suspense while awaiting communication of the firm judicial ruling, whether by way of judgment or ruling of a stay of proceedings or dismissal. Besides the above, as reiteratedly enshrined in most of the administrative penalising legal rules, the principle of *non bis in idem* enforces respect for the principle of *res judicata* (Judgment of the Spanish Constitutional Court 77/1983 of 3 October, FJ 3).

Should the court rule filing of the case on the grounds that it does not represent a crime or has not been sufficiently accredited as such, the case may then be taken up in administrative proceedings if there are deemed to be sufficient indications of a case to answer or incriminating evidence.

In practice, however, the most common occurrence is precisely filing of criminal proceedings on the grounds of a stay of proceedings due to the impossibility of indicting a given person for perpetration of the criminal act.

In these cases the most frequent conclusion drawn is the automatic assumption that if the criminal prosecutors have not seen fit to find perpetration of the infringement as provable, then the case should not “be taken further” by administrative proceedings and the best procedure thenceforth would also be filing of the procedure suspended for alleged perpetration. Nonetheless, in the words of the Higher Court of Justice of Castilla-La-Mancha (*Tribunal Superior de Justicia de Castilla-La Mancha*) (STSJ CLM 20 April 2009, Judicial Review Chamber 2 (*Sala 2ª de lo Contencioso Administrativo FD 2º*)) *prima facie* the filing of the criminal proceedings pursued for the same acts does not necessarily rule out subsequent administrative proceedings against the perpetrator, which would culminate in a penalising decision we will look at later. There is no question that the previous proceedings ended with a ruling of a stay of proceedings on the grounds that there are not sufficient motives for attributing the acts to a given person. That said, this ruling does not contain proven facts whose declaration could be binding on the administration pursuant to article 137.2 of Ley 30/1992. In other words there is no declaration that the indicted person is not the perpetrator of the acts, which would mean in the case under examination that neither the administration nor this chamber would be able to address the question under debate, whereby the administration could continue the suspended proceedings while the criminal case is being substantiated and this court can proceed to review past proceedings for the purpose of ruling on the commission of the infringement attributed to the appellant.

It is precisely in the discussion of the nature and specific content of the stay of proceedings where the jurisprudential debate centres on those cases where, despite the stay of criminal proceedings, the administration still considers that there is enough potential evidence for proof of perpetration in administrative proceedings. It is in fact defensible to argue that the stay of proceedings does not expressly rule out perpetration of a given person and ipso facto bind the administration. The effects of *res judicata* cannot obtain, especially the negative efficacy thereof, since it is a case of a stay of proceedings rather than a firm judgment.

As things stand today, on a practical sense, the question would have to be decided on a case-by-case basis, according to the importance of the case and the evidence to hand, with special attention being paid to whether actual perpetration of the act is the only penalising possibility, due to the fact that the environmental authority lacks the legal wherewithal for addressing the infringement from other procedural angles such as a penalty for lack of notification, vicarious liability or abusive or disorderly exploitation.

In any case it is important to make the following caveats about the evidence procedure; without doubt these caveats could be extended to criminal proceedings too.

It is obvious that the obtaining of direct evidence in proceedings of this type is in most cases impossible, since the perpetrators have the whole open countryside to work in and cover their acts. Exceptions to this rule are the complex investigations carried out by the poison unit of the *Agents Rurals de Catalunya*, which catch the perpetrators “*in fraganti*”, with surprising results in terms of the conclusiveness of the evidence with direct testimonial evidence of the environment officers being recorded on playback media.

What we normally have to work with is mere circumstantial evidence, which is certainly not alien to our judicial system. Along these lines indirect evidence, the requisites whereof have been spelled out in case law (accreditation of the basic facts, plurality of indications of a case to answer or some very strong indications reinforcing each other, unequivocalness of the conclusion drawn), is sufficient incriminating evidence, as occurs in cases of crimes against public health, theft, etc.

Indications of a case to answer are in practice our best allies, comprising the following:

- Finding the same product used in baits inside buildings on site (especially if they are locked) or in working vehicles of the suspects, use thereof as legitimate phytosanitary products being ruled out. Accreditation thereof may range from purchase in legal form to being in possession of suitable equipment and wherewithal. Dogs have been shown to be efficient for searches inside buildings, vehicles and on land, especially immediately after discovery of the episode.
- Identify footprints or wheel tracks of vehicles belonging to said persons in the zone or in the immediate vicinity of the place where the poisoning event occurred.
- Prove their presence in the area and on the days of occurrence on the strength of other witnesses like animal herders, dog walkers, etc.
- That the suspects proceed to locate perfectly the forbidden means, always after due communication of their rights.
- DNA of the suspects on utensils directly employed in the poisoning episode (bags, gloves, packaging) or accreditation of purchase of the meat product used to make the bait.
- Presence or custody of the same bait components in possession of the suspects (e.g. fridges with the same type of meat, even with the same preparation).
- Accredited offer of taking on the veterinary treatment or costs of the animals (usually animal herding dogs or pets) that have died after swallowing the bait.
- If the location of the bait coincides and overlaps with other hunting facilities or another activity bound up with the final purpose of the poisoning, which calls for the regular presence of the suspect for maintenance or control thereof (such as drinking troughs, feeding stations, cairns, authorised predator control methods).
- The hiding of carcasses of animals killed by poisoning, excluding the motive of revenge and showing perfect knowledge of the facts
- The motive of poisoning and direct relationship thereof with the suspect, which might range from attempts to avoid damage to game species, livestock, corrals of chickens or racing pigeons, duly justified. It is essential here to compile conclusive proof in the form of precedents involving documents or other testimony.
- The use of bait within fenced-off areas, enclosed courtyards or corrals that rule out third party involvement.

It is clearly the job of the report of the alleged offence (*atestado*) to accredit objectively the perpetration of the act, giving a precise description of the state of things and the collection of all physical evidence on the ground, including the first witness statements taken down. But it is crucially important that this fairly limited proof be fleshed out with document-based accreditation of the following aspects, albeit by way of a procedural addendum after calling in the bodies or experts with competence on this matter:

- Degree of protection of the land where the poisoning occurred or the affected animals that have turned up, with documents to prove their declaration as such and protection scheme. This is essential for any territory making up part of the Natura 2000 network: SCI, SPA, SAC, since proof must be given of the occurrence of the act within the protected area.
- Regardless of the legal classification of the species affected, local status of its population, and real effect on biodiversity, with a specific report on the seriousness of the episode or mortality.
- Technical hunting plans or livestock-farming authorisation, as the case may be.
- Existence of recovery or conservation plans affected by the dead species and projects being carried out by the government with respect thereto using a specifically earmarked budget.
- Economic assessment of the animals affected, pursuant to administrative rules, without detriment to the estimated cost of the damage caused or recovery measures proposed with grounds.
- Hazardousness to biodiversity and public health.
- Safety data sheet of the product used and proof of its prohibition on the grounds of its active principle.

On vicarious liability and the formal obligation of notifying

Special mention must be made of article 22.2 of the Nature Conservation Law 9 of 26 May 1999, (*Ley de Conservación de la Naturaleza*) of Castilla La Mancha.

It is the responsibility of the tenure holders of hunting grounds to establish necessary measures to prevent the existence or unauthorised placement therein of poisoned-baits in circumstances likely to damage wildlife. This obligation will fall on the leaseholder if there is document-based proof of the hunting ground being leased thereto.

This infringement is classed as serious in section 10 of article 109 of the same law. Article 113.1 c) lays down penalties that range from €25,001 to 100,000 plus the possibility of total or partial suspension of the activity for a term ranging from six months to two years.

For its part article 33.2 of the Wildlife Law of Andalusia 8 of 28 October 2003 (*Ley de Flora and Fauna Silvestres de Andalucía*) runs as follows:

Owners of land or tenure holders of rights in rem or rights in personam to use same are bound to take all due measures to prevent the existence or unauthorised placement therein of poisoned-baits in circumstances likely to damage wildlife. The finding of poisoned-baits and of any indiscriminate and mass-killing method that has not been expressly authorised will be grounds for precautionary suspension of the corresponding hunting authorisation. This suspension measure shall be confirmed, modified or raised in the agreement to initiate the ensuing procedure, which must be taken within fifteen days of adoption thereof, against which the corresponding appeal may be lodged. In any case, this measure will be rendered null and void if the procedure is not initiated within said deadline or when the agreement to initiate it does not contain express pronouncement thereon.

This infringement is classed as minor, with penalties of up to €601; the most important feature is total or partial suspension of the hunting authorisation.

The aim of introducing these articles was to forestall duplicity of specification within the Spanish Penal Code, doing so by laying down specific obligations of watchfulness and control for tenure- or lease-holders of hunting grounds in Castilla La Mancha, enlarged in Andalusia's legislation to holders of rights in rem and rights in personam.

In administrative proceedings in both cases the *litispendencia* rule (pending trial on the same matter) has often been invoked claiming the matter is still being dealt with in criminal courts and calling for the administrative procedure to be suspended until a judgment is handed down in the former.

The question nowadays is resolved peacefully by decisions of the Higher Courts of Justice (*Tribunales Superiores de Justicia*) of both regions, arguing that said invocation is mistaken insofar as the formulae of vicarious liability have been brought in precisely with the purpose of forefending duality of administrative and criminal specifications of infringements, giving rise to a new act that is then prosecutable in administrative punitive proceedings: the infringing conduct is not in fact the placement of poisoned-baits as such, but rather, in the words of the *Tribunal Superior de Justicia de Castilla La Mancha* (STSJ CLM 27/11/2007) *the infringement in question is failure to provide effective surveillance of the fenced-off hunting area with the purpose of avoiding damaging conduct such as the placement of poisoned-baits*. Along the same lines, the judgment handed down by the Judicial Review Court (*Juzgado de lo Contencioso-Administrativo*) number 2 of Albacete, dated 19 October 2010, lays it down that *the tenure holder of the hunting ground shall employ maximum diligence in complying with the obligations imposed thereon by law to prevent placement of baits or the existence of poisoned-baits in the hunting grounds they are responsible for ...having infringed the guarantee duty laid down by Article 22.2 of Ley 9/99: Vis-à-vis the major rights pertaining thereto and enjoyed as tenure holder thereof, there is no other consequence than compliance with certain obligations, among others that are stipulated in Article 22.2 of the Nature Conservation Law 9/1999 of 26 May (Ley de Conservación de la Naturaleza)*.

STSJ CLM of 27 November 2010 forthrightly states that *what the tenure holder of the penalised hunting ground is charged with is not the placement of bait but rather negligent conduct in failing to adopt the surveillance measures incumbent thereon to forestall the placement of poisoned-*

baits in the hunting ground he or she is tenure holder of, or, as it is also pointed out, the obligation incumbent on the tenure holder of the fenced-off hunting ground is an obligation of resources and watchfulness to prevent placement of poisoned-baits. In avoidance of these unlawful situations the tenure holder is bound to take efficient measures, i.e., an obligation of effective watchfulness moreover, an attentive and ongoing surveillance as imposed by law. The call for this effective watchfulness (...) and the omission of the necessary behaviour for finding and withdrawing the source of danger were sufficient grounds for the reported infringement to have been considered to have been committed.

Thus presented, the infringement of these legal rules serves to reinforce within Spain's legislation the concept of guarantor attributed to certain people by the law. This is normal elsewhere within Spain's body of law, such as protection of employees or in the fiscal domain. Personal liability for the appearance of poisoned-baits in land falling under the person's management or tenure or exploited by same, as just counterpoint to the rights enjoyed thereby, implying increased liability: there is no assumption of actual perpetration; neither is this a formula for subsidiary attribution of an action to certain persons. Rather is this a case, in its own right, *not of penalising a result- or activity-based infringement but rather an infringement of inactivity, in the sense laid down in the legal rule itself of failure by the tenure holder of the hunting ground to adopt the necessary measures to prevent the placement of poisoned-baits likely to harm wildlife (SJC Albacete-2 of 5 July 2007).*

The only legal stumbling block that might a priori pre-empt opening and termination of proceedings for vicarious liability, therefore, or the position of guarantor, at the same time as previous proceedings are underway for the crime of article 336 of the Spanish Penal Code would be that the tenure- or lease-holder of the hunting ground (as the case may be) or the rest of the persons designated in the Andalusian law were the same people indicted in the criminal proceedings, on the grounds that it is in principle incompatible to prosecute a person in criminal proceedings as alleged perpetrator of the placement of bait while also trying to bring administrative proceedings against this same person for failure to have carried out the necessary actions to prevent placement thereof.

In practice such a coincidence is unlikely, inasmuch as the guarantors of the environment are usually companies, associations, legal persons, whereas criminal prosecution usually involves the personal action of the alleged perpetrators. Moreover, incrimination of guarantors as intellectual authors under administrative law is still quite rare, unless their material perpetration is proven too.

In other words immediate performance of punitive proceedings involving vicarious liability in this particular sense (lack of watchfulness or *responsabilidad in vigilando*) is feasible even when previous criminal proceedings are still underway for the appearance of poisoned-baits, insofar as the administrative proceedings seek to punish the inactivity of guarantors, quite apart from the activity involved in its placement.

The above would be questionable only when the guarantor has also been indicted under previous proceedings as material or intellectual perpetrator of the placement of poisoned-baits, and while this character of indicted or accused is still in force, on the understanding that the more serious

infringement of poisoned-bait placement subsumes the infringement of lack of watchfulness, despite its being arguable that there is in fact no duplicity due to the different nature of the two infringements.

The obligation of notifying wildlife poisoning episodes or the presence of poisoned-baits on land has been legislated differently in different regions. Castilla La Mancha, for example, in article 109.34 of the Conservation Law 9/1999 (*Ley de Conservación*), specifies the following action as a serious infringement:

Failure by healthcare managers, tenure holders of hunting grounds and wardens thereof to bring to the notice of competent authorities symptoms of animal diseases or contagious diseases or baits apparently poisoned or animals ostensibly affected by same, when they become cognisant thereof.

Article 111.8 of the same text lays down the following as a less serious infringement:

Failure by any person other than those itemised in article 109.34 to bring to the notice of competent authorities symptoms of animal diseases or contagious diseases or baits apparently poisoned or animals ostensibly affected by same, when they become cognisant thereof.

This therefore represents different legal treatment of those obliged to communicate the find, their liability depending on their position vis-à-vis the acts. As is only logical, the greatest liability falls on veterinary professionals and professionals of the hunting community, bearing a direct relationship and a greater legal requirement to control and supervise occurrences, the punishment therefore being lighter for any other people who might become cognisant of the acts.

As well as an important function of deterrence, this legal provision is also designed to provide the government and its agents with vital information for the prevention of the use of poisoned-baits, such as the immediate localisation of indicator species. This ensures rapid inspection of the territory possibly affected by said practice, reinforcing the obligations incumbent on the guarantors of the territory, obliging them to forestall the appearance of poison and, after having discovered poison use, immediately bring it to the attention of the competent authority. The region of Andalucía, for its part, lays down the obligation of notifying poisoning episodes in article 16.3 of Ley 8/2003: *Local authorities, the tenure-holders of hunting grounds or any other persons are bound to notify instantly any symptoms of animal diseases or contagious illnesses and also the appearance of poisoned-baits or animals affected by same.*

The region of Navarre is crucially important as a standard bearer in opening punitive proceedings that might lead to the temporary closure or suspension of hunting activity, in default of specific formulae of vicarious liability or formula deriving from the position of guarantor. Article 20.1 e) of the Navarre Hunting and Fishing Law 17/2005 (*Ley Foral de Caza y Pesca*) lays down the duties of the tenure holder of the hunting ground:

Inform the Department of the Environment, Town and Country Planning and Housing (Departamento de Medio Ambiente, Ordenación del Territorio y Vivienda) of the appearance of illnesses suggesting an outbreak of animal diseases such as poisoning events and use of forbidden procedures and gear in hunting grounds.

This is classed as a minor infringement in article 87.18 of the law, article 100 d) of which stipulates the possibility that:

In the case of infringements committed by the tenure holder of the hunting ground or licence holder the penalty could consist of the temporary suspension of the hunting activity therein when slight or serious infringements are involved, or definitive closure in the event of very serious infringements.

The provision allowed, for example, suspension of hunting grounds NA-10.013 and NA-10.231, by decisions of the Director General of the Environment (*Director General de Medio Ambiente*) of 13 and 15 March 2013, on the grounds precisely that it is not believable that licence holders would be unaware of the poisoning due to the sheer notoriety thereof in terms of the great number of species affected, the easy localisation thereof, the continuity of the infringement, sometimes committed in frequented areas criss-crossed by people involved in other rightful activities of the hunting ground.

Remedial measures, their grounds, scope and content

State-level regulation is made up by the Natural Heritage and Biodiversity Law 42 of 13 December 2007 (*Ley de Patrimonio Natural y Biodiversidad*). This law, like the previous article 34.d) of *Ley 4/89*, lays it down in Title III (Conservation of Biodiversity), within Chapter IV (On the protection of species in relation to hunting and coarse fishing), article 62.d) *that temporary or permanent moratoria of special prohibitions may be established when deemed fitting on biological or healthcare grounds.*

This legal provision establishes the government's empowerment to take action for restoration of the affected environment independently of and even concurrently with the prosecution of the possible perpetrator of the poisoning episodes, whether as administrative or criminal proceedings, thereby obviating the need of opening or maintaining punitive proceedings or the ongoing validity of any attribution of blame. This is tied in with the possibility of establishing temporary moratoria or prohibitions in relation to the hunting activity, when considered fitting for biological reasons.

The legal coverage given by lawful limitations or specific prohibitions of a markedly objective character, and referring specially to the conservation of threatened species, obviates the need to establish perpetration or special surveillance regimes. Instead it ties in objectively (technical justification) with the appearance of baits or protected wildlife species poisoned, on biological grounds that argue in favour of suspending the hunting activity for the recovery of the populations of mesopredators, superpredators and carrion eaters and ipso facto restoration of the balance upset by the appearance of poison and its impact on natural balance. This interest overrides unconditional maintenance of the right to hunt, which has to give way to the need of restoring the upset natural balance, whoever may have been the perpetrator of the poison use and, most certainly, without cancelling or constraining any actions taken by those affected by same.

It is clear that these measures call for corresponding reports by competent experts, setting forth the damage done to natural balance and the need and proportionality or suitability of suspending the hunting activity or reducing it or bringing it into line with the new situation, to favour recovery of the environment by means of constraining the hunting activity (release of hunting pressure on the food-chain base or basic species of the ecosystem).

The measures adopted on these legal grounds might vary greatly in content and timeframe, inasmuch as their underlying purpose is the repair of the damage or impact or facilitating the conditions for said repair. This may involve pure suspension of the hunting activity or constraints thereon, in each case in line with the specific circumstances brought to light. By way of example these may be the following, duly justified by a technical report: Absolute prohibition of all hunting-related activity (not only hunting itself but also, for example, the control of predators) or reduction of authorised hunting hours or huntable species or hunting arrangements.

These measures have no maximum term, since their purpose is to protect the natural balance; they will therefore be kept on until definitive recovery of the affected biodiversity; this will depend on the on-the-site monitoring of progress or an initial forecast. As for the spatial extension, this does not necessarily have to be limited to the land on which the poisoned-baits or their effects have appeared; it can also take in all terrain that now stands in need of restoration, with the establishment of due graduations thereof on technical criteria.

Indeed, prior to the *Ley de Patrimonio Natural y Biodiversidad*, Castilla La Mancha had already legislated the possibility of dictating remedial measures of the environment affected by the placement of poisoned-baits: thus, article 69.bis of *Ley 9/1999* lays it down that whenever any animal diseases or contagious illnesses to humans, pets or wildlife or *poisoning episodes* come to light, the competent regional ministry (*Consejería*) will take the necessary measures that might involve temporary suspension, limitations or prohibitions in carrying out affected activities, including hunting-related activities, fishing and fishfarming. This article, taken together with the provisions laid down in article 63.1 of the same law, which obliges the government to adopt as many measures as may be necessary to guarantee the conservation, protection and recovery of the species of flora and fauna, especially the autochthonous species, makes it incumbent on the *Consejería* to adopt immediate remedial measures for the environment affected by the use of poisoned-baits.

In practice the need of adopting said remedial measures had already been laid down in diverse regional plans against the use of poison, such as Castilla-La Mancha (point 6.4 of the Regional Plan for the Fight against the Illegal use of Poison) and Aragón (Point 3 of the Administrative Procedure Protocol [*Protocolo de Actuaciones Administrativas*]) and they can even be introduced through the General Closed-Season Order (*Ordenes Generales de Veda*) or the legislative instrument approving the recovery or conservation plans of certain species. The *Protocolo de Actuaciones Administrativas* of Aragón sets forth a series of conditions and specific circumstances in which the government will proceed to open the remedial-measure proceedings, as well as the specific measures to be taken, their geographical extension and duration, always abiding by technical criteria habitually employed and with special heed paid to the seriousness of the acts brought to light.

Castilla y León has made shrewd use of these measures by providing in its legislation for no other forms of reaction than prosecution of the perpetration. For a very recent example see the Judgment of its *Tribunal Superior de Justicia, Sala de lo Contencioso Administrativo* (judicial review chamber of the Higher Court of Justice, based in Valladolid), Section 1, dated 26 July 2013, number 1414/2013, confirming legality of the Decision of 26 June 2007 of the *Dirección General de Medio Natural* suspending hunting activities within the municipal district of Valdecañas de Cerrato y Antigüedad. Here we lay particular stress on its legal grounds:

As we have seen it is repeatedly stressed within the procedure that the decision hereby challenged constitutes in fact a covert penalty for the hunting grounds run by the appellant associations, thereby denying that the agreed suspension measure is an exceptional measure that could be justified on grounds of public interest. This claim is based on the fact that poisoning litigation would make them ineligible for subsequent grant schemes, pointing out in this sense that, since they themselves are not responsible for any punishable illegal action, this ineligibility would not be fair.

These arguments fall by their own weight upon simple consideration that the suspension of hunting plans agreed in the appealed-against decision is a hunting control measure adopted for reasons of public interest. It is therefore totally out of order to invoke motives concerning penalising procedures when what is under trial is a decision that does not have this character.

This was the understanding of the judicial review chamber of Burgos in relation to a supposed resemblance in the judgment dated 18 November 2011 given in the appeal 77/2011, whose legal ground 5, hereby taken on as its own by this court, runs as follows:

"Working from these presuppositions and without the appellant disputing the appearance of these dead animals or their cause of death, or that we are dealing here with species some of which have been listed in the national catalogue of threatened species and others listed as "of special interest", the chamber also points out henceforth that the proceedings appealed against is not a punitive proceedings and that the suspension measure agreed in the administrative decisions appealed against is not a penalty and neither is it a response to the commitment of an administrative infringement. What we are in fact dealing with here is a hunting control measure that, as we will see later, has legal coverage both in state and regional legislation. And however much the appellant entity may insist, we are not dealing here with a punishment enforced on the Local Farming Council (Junta Agropecuaria Local) or on the leaseholders of the hunting ground affected, which will be forbidden from running the grounds NUM015 in Yanguas de Eresma for the purposes of hunting small game species. For all these reasons the pleas and reasons put forward by the appellant in its claim, arguing that the consequences of the adopted measures should be suffered only by those responsible for the poisoning episode or such persons as may be indicted and punished for the perpetration of said administrative infringement do not in fact hold water and bear no relationship whatsoever with the nature and purpose of the agreed decision and the pronouncements made therein.

We should remember here that the suspension measure agreed on an exceptional basis does not set out to punish anyone; its overriding aim is rather to restore the community of vertebrates affected by the non-natural mortality episode to recover the natural structure of the populations

affected in the described area, though disruption of the food chains governing said community. It is true that the adopted measure limits rights as a hunting control method but said limitation is justified by the exceptional nature of the situation thus brought about, as manifested in the "delicate state of conservation shown by some of the species affected by said episode of non-natural deaths" (...)

The appellant claims that there is no legal precept whatsoever of a substantive or procedural nature that would account for the adoption of said suspension measure in the decision of 25 June 2009 of the Dirección General del Medio Natural of the Consejería de Medio Ambiente and confirmed on appeal. Neither does this argument stand up since said measure is legally valid as a hunting control measure, and the fact that it has been adopted as such is borne out by the arguments put forward in both decisions. This legal endorsement is also to be found in state legislation made up by the Natural Heritage and Biodiversity Law 42 of 13 December 2007 (Ley del Patrimonio Natural y de la Biodiversidad) EDL 2007/212254, and regional legislation, specifically the Order (Orden) MAM/1137/2008 of 25 June approving the Annual Hunting Order (Orden Anual de Caza) of Castilla y León, published in development of articles 41.1 and

42.3 of the Castilla y León Hunting Law 4/1996 of 12 July (Ley de Caza de Castilla y León) EDL 1996/15979.

A fundamental characteristic of remedial measures is their direct enforcement without possibility of appeal in administrative proceedings, as follows from the nature thereof and the provisions laid down in article 94 of the *Ley de Régimen Jurídico y Procedimiento Administrativo Común*. A desirable feature of procedures of this type, moreover, is also for suitable remedial measures to be decreed at the same time as the suspension of the hunting plans affected by said measures, since the scenario dealt with therein has been radically altered by the irruption of the poison. These measures, furthermore, should be brought into line with the post-poisoning circumstances as rightly pointed out by the *Protocolo de Actuaciones Administrativas* of the *Junta de Castilla y León* (Annex V).

Exploitation incompatible with maintenance of biodiversity (abusive or disorderly)

Article 62.h) of the Natural Heritage and Biodiversity Law 42 of 13 December 2007 (*Ley de Patrimonio Natural y Biodiversidad*) lays it down that: *When it has been proven that the management of the hunting ground adversely affects the renewal or sustainability of recourses, the competent public authorities will be entitled to totally or partially suspend the hunting rights.*

It is essential to understand that this is not strictly a penalising procedure but rather review of the authorisation granted, on objective grounds, aiming to accredit or prove that in certain hunting grounds insufficient respect is being paid to maintenance or enhancement of biodiversity as an overriding value. In proceedings of this type analysis of the past history of the ground is key. This will usually disclose a disastrous management of the environment not only with the current poisoning episode but a whole string of infringements showing a longstanding breach of environmental protection law.

This state legislation has been taken up by regional legislation in many cases, some of greater development such as the specific case of Castilla-La Mancha, which establishes the specific procedure for what it calls *aprovechamiento abusivo* (abusive exploitation) in article 56.10 of *Ley 2/1.993, de Caza*:

Whenever private hunting grounds breach the provisions laid down in article 1 of this law, the Regional Agriculture Ministry (Consejería de Agricultura), will be entitled to overrule the declaration of the site as an authorised hunting ground or establish a temporary closure of its terrain for this purpose, doing so by initiating due proceedings and giving a hearing to the interested parties and sending a report up to the Provincial Hunting Board (Consejo Provincial de Caza).

*The unauthorised existence or placement of **poisoned-baits** in hunting grounds will be considered to be an abusive exploitation of hunting resources that runs counter to the natural balance of the site.*

This procedure is reiterated in article 78.1.a) of the Hunting Regulation (*Reglamento de Caza*) (*Decreto 141/1996* of 9 December)

1.- Suspension of the hunting activity or, as the case may be, revocation of the authorisation as a registered hunting ground may be agreed in the following cases:

- a) When a hunting ground breaches the provisions laid down in article 1 of the Ley de Caza. The unauthorised placement or existence of poisoned-baits in hunting grounds will be deemed to be abusive exploitation of the hunting resources that runs counter to the natural balance of the site.*

Justification of the initiation of proceedings of this type in the examination phase or the crime-investigation stage obviously rests on the objective fact of the appearance (existence) of the poisoned-baits and, in the firm-conviction phase in any criminal proceedings, on the proven fact of the unauthorised placement and specific attribution of the perpetration thereof. The regulation of the CCAA of Castilla-La Mancha is the strictest insofar as it does not call for any continuity, reiteration or earlier episodes. Simple placement or existence suffices under Ley 9/1999 for legal classification of abusive exploitation. An example of proceedings of this type comes in the Judgment of 29 July of Section 1 of the *Sala de lo Contencioso Administrativo* of the *Tribunal Superior de Justicia* of Castilla-La Mancha, appeal 59/2010, in which, dealing with an appeal for overruling of the administrative decision agreeing a two-year closure of a hunting ground in the province of Toledo, after appearance therein of poisoned-baits, the Court confirmed the appealed-against sentence on the grounds that this administrative proceedings is not penalising and does not call for an actual effect on the fauna but merely the presence of poisoned-baits in the countryside, which is precisely the practice that is being fought against by the law's classification of the existence or placement of poisoned-baits as abusive exploitation of a hunting ground.

In other CCAA, such as Aragón, "reiteration" is called for, i.e., more than a one-off event: witness the recent case that prompted the Director of the Provincial Service (*Director del Servicio Provincial*) of Huesca of the Department of Agriculture, Livestock-Farming and the Environment

(*Departamento de Agricultura, Ganadería y Medio Ambiente*) to propose temporary suspension of hunting activity in a hunting ground in the province of Huesca in which there had been repeated cases of poisoning and the appearance of threatened species killed by bait, traps, and other conduct prohibited by the *Ley de Caza*. This proposal was based precisely on article 20.1.a) of the Aragon Hunting Law 5 of 4 April 2002 (*Ley de Caza de Aragón*), which lays down the following:

- 1.- *The environment department will be entitled to adopt, as a precautionary measure, temporary suspension of the hunting activity in hunting grounds on a report by the director of the provincial environmental service with the purpose of urgent safeguarding of the goods and rights affected by the objective proof of any of the following circumstances:*
 - a) *Rational signs of reiterated placement of poison that jeopardises species included in the catalogues of threatened species.*

Notwithstanding these two bookend cases at regional level, with only one episode being called for in Castilla La Mancha and the more restrictive requirements in Aragon, calling for reiteration, the basic regulation at state level has proven to be highly useful when a number of actions against biodiversity, usually serious, have occurred over time and have gone unpunished due to the filing of criminal cases or the lack of any administrative penalty. This is quite usual in cases of poisoning or the death of listed species. This is where the review proceedings really come into their own. Justification for the measure would be based on the reiterated appearance over time of wildlife species that have been poisoned or have died from unnatural causes, baits, in conjunction with a past history of forbidden resources or gear, infringements of the hunting law, etc., which have either gone unpunished in criminal or administrative proceedings due to failure to prove perpetration or, even if punished, have created a state of affairs that clearly reflect a disorderly management of the territory. The object of proof in this procedure is the facts that lead to the conclusion of defective management, pride of place going to the series of poisoned-baits episodes unpunished due to lack of known perpetrator, or especially serious episodes, dead species, forbidden means, excess captures on hunting days and other hunting or conservation infringements. As usual the technical report vouching for the measure plays a crucial part here, managing not only to prove the background facts of the case but also bring them into relation with the damage caused for the purposes of proving negligent management.

Precautionary measures or injunctions

In direct application of the principle of the prevalence of criminal proceedings, the punishment enforcement capacity of administrative proceedings is temporarily suspended while criminal procedures are underway in an attempt to find the guilty party. But what administrative procedures can never forfeit, and much less delegate, is the rest of their legal powers to protect the affected legal goods, at least those powers that do not have a punitive remit and which also, within this specification, coincide fully in terms of subject, fact and grounds between the criminal and administrative infringement.

It is in fact precisely regional environmental administration that has taken on legislative responsibilities for development and enforcement in the defence and promotion of the environment in the broad sense and cannot therefore set aside the rest of its functions on the grounds of a coincidence in any infringement of the person, fact and legal ground. These functions take in such aspects as the collection of data, the drawing up of reports, the monitoring of facts or the consequences thereof and, especially important, adoption of measures of an administrative character laid down in law for repair of damage, avoid continuity thereof or any other form of undesirable exploitation of the effects of the infringement.

It is crucially important here to remember that suspension of the administrative punitive activity operates exclusively with respect to enforcing any penalty for the same facts being dealt with in the examination phase of the case but do not extend under law to the possibility (or rather obligation) of dictating such administrative control and protection measures as may be considered necessary. One of the most important of such measures is injunctions and all measures of a remedial character or those intended to restore things to their former state. Also subsistent are such measures as may prove necessary like control, supervision and administrative review of all authorisations, licences or arrangements. Especially important here is the content or ongoing validity of any technical hunting plans (*Planes Técnicos de Caza*), which have to be analysed in light of the new situation created by the poisoning episode, even mooting temporary closure of the hunting ground for abusive exploitation.

Article 339 of the Spanish Penal Code has now been amended by *Ley Orgánica 5/2010* of 22 June to be worded as follows: *Judges or courts will order the adoption of necessary measures designed to restore the upset ecological balance and any other precautionary measure necessary for protection of the goods protected hereunder, the cost of such measures to be defrayed by the perpetrator.* This new wording has made it obligatorily incumbent on the court, rather than the former mere possibility, to dictate the proper protection measures in the examination phase of the case and remedial measures in the judgment, to be defrayed by the perpetrator. The aim here is precisely to ensure that courts fulfil their likewise unshirkable remit of looking out for protected legal goods and the constitutional obligation of repairing the damage caused (article 45 of the Spanish Constitution).

The environmental administration is therefore even more strongly obliged to look out for the protection of legal goods that may in turn serve as the technical base or precedent for judicial decisions to be given in criminal proceedings, liaising for this purpose with the judicial operators (public prosecutor's office and courts). These decisions do not have to be identical insofar as the courts enjoy operational independence from the administrative legal body and ipso facto a liberty and amplitude that the administration does not usually have due to an exact legal delimitation of its reach (territorially it cannot extend beyond the CCAA, limitations in terms of the duration of its suspensions, scope thereof, etc.).

Injunctions are brought in to avoid criminal continuity or aggravation of the damage. Essential here is the technical report and the measures to be taken have to be brought into line with the particular circumstances of each case and hunting ground (detailed examination of its technical plan) and also the seriousness of concomitant events. These measures also have to be taken under punitive proceedings, even though this action has been temporarily suspended until such time

as notification is given of the judgment or court order bringing the criminal proceedings to an end.

Article 136 de of the Administrative Procedure Law 30 of 26 November 1992 (*Ley de Régimen Jurídico de las Administraciones Públicas y del Procedimiento Administrativo Común*), in relation with its article 72.1, lays it down that: "*Whenever so provided for in the legal rules regulating punishment procedures, measures of a provisional character may be brought on reasoned grounds to ensure efficacy of such final decision as may eventually be dictated*". Article 15 of *Real Decreto* 1398/1993 of 4 August, approving the Procedural Regulation for Enforcement of Penalising Powers (*Reglamento del Procedimiento para el Ejercicio de la Potestad Sancionadora*), pursuant to provisions laid down in former articles, provides for adoption of measures of this type in the penalising procedure.

Special mention must go to the fact that application thereof must basically be designed to avoid a sort of *environmental receiving of stolen goods*, i.e., that no consequence of the poisoning on the affected terrain may be exploited after said terrain has been deprived of the predation load due to the poison use, from a viewpoint more centred on the pure motive of the placement of poisoned-baits and even the need of rethinking the situation and hence duly studying how the poison-affected environment has ended up. This would involve suspension of all technical plans until revision thereof in light of the new situation, to avoid further aggravation of the damage. In practice, however, administrations understand the remedial measures to be directly applied quite independently of the penalising procedure, even though the injunctions are also executive by their very nature.

Chapter X

LEGITIMACY OF ENVIRONMENTAL NON-GOVERNMENTAL ORGANIZATIONS AND ASSOCIATIONS FOR TAKING PART IN CRIMINAL AND ADMINISTRATIVE PUNITIVE PROCEDURES FOR ILLEGAL USE OF POISON

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The *Programa Antídoto* is an alliance of the main conservationist NGOs against poison

1. Reporting of the infringement and participation as interested third parties in an administrative punitive procedure

Any citizen who happens to witness or become cognisant of wildlife poisoning episodes or the existence of poisoned-baits can report this to the competent bodies of the regional or central government authorities. The authorities are then bound to analyse the alleged crime and carry out the necessary activities to ascertain whether there are indications of an administrative infringement, whereupon the corresponding penalising procedure would be initiated, or the case would be filed as unprosecutable. In either case, whether the case goes ahead or is shelved, the person who reported the alleged offence has to be informed of the outcome. If the infringement might represent a specified crime or misdemeanours, the administration will bring it to the notice of the competent judicial body and suspend the administrative penalising procedure until the criminal proceedings have ended.

As in other administrative infringements, the punitive proceedings for poisoning cases are always initiated *ex officio*, by agreement of the competent body, a reasoned request from other bodies or a report of the alleged offence⁸⁵. By reporting the alleged offence any person can bring to the notice of an administrative body a given fact or event that might represent an administrative infringement, in the case we are dealing with here, the existence of poisoned-baits and fauna or knowledge of the placement of poison. When a report or complaint is lodged the administration is then bound to feedback to the complainant the outcome, i.e., whether or not ensuing proceeding are to be initiated on the strength thereof, whenever the complaint is accompanied by an application for the initiation. It is therefore very important for the initial complaint or report of the alleged offence not only to record the facts or events that might constitute an infringement, the persons involved and other circumstances but also to expressly request initiation of the corresponding punitive proceedings, and also that the complainant then be informed of whether or not the proceedings are in fact to be initiated.

This is so because the complainant does not automatically become an interested party in the punitive proceedings. The administration will be bound only to notify the complainant of whether or not the proceedings have been initiated if this has previously been formally requested. In principle any complainant not actually injured or harmed by the infringement in question will not be eligible for participating in the ensuing proceedings as an interested party or appealing against the filing of the complaint.

Whether they are complainants or not, however, interested third parties are allowed to take part in the punitive proceedings, on condition that they formally appear in the proceedings before termination thereof and are holders of rights or legitimate interests that might be affected by the infringement committed⁸⁶. Any citizen is also eligible for participating as an interested party in the proceedings without needing to accredit legitimacy in cases where public action is recognised, as occurs in hunting or nature protection laws of several CCAA.

In general, and throughout the whole national territory, environmental associations that have been set up for over two years and whose founding statutes include the purpose of protecting the environment can take part as interested parties in the proceedings (and should expressly request to do so in their complaint or participation as accusing party). Indeed, pursuant to article 23 of *Ley 27/2006* of 18 July, regulating the rights of information access, public participation and access to justice in environmental matters, environmental associations are eligible to lodge an administrative private prosecution (*acusación popular*) in environmental matters.

Although court decisions are not unanimous on this matter, courts do tend⁸⁷ to include the following among the administration's obligations vis-à-vis interested parties (other than the complainant) in punitive proceedings: ensure the right of interested parties (including the complainant) to keep track of proceedings and obtain copies thereof, the right to formulate pleas and furnish

85. Article 11 of *Real Decreto* 1398/1993 of 4 August, approving the Procedural Regulation for Enforcement of Penalising Powers (*Reglamento del Procedimiento para el Ejercicio de la Potestad Sancionadora*)

86. Article 31 of the Administrative Procedure Law 30 of 26 November 1992 (*Ley de Régimen Jurídico de las Administraciones Públicas y del Procedimiento Administrativo Común*)

87. See Judgment TSJ Cast-León (Bur) *Sala de lo Contencioso-Administrativo* (Judicial Review Chamber), sec. 1, S 9-1-2009, nº 14/2009, rec. 155/2008. Presiding judge: Revilla Revilla, Eusebio.

documents,⁸⁸ the right to be informed of initiation of the proceedings, the right to provide evidence, the right to be told of any draft decision suggested by court secretary and also notification of the final decision bringing the proceedings to an end, whether punitive or otherwise.

The administration's obligation (even if requested by the complainant or interested party) does not necessarily include initiation of the punitive proceedings or dictation of a punitive decision, if there are no punishable events or people presumably responsible. Nonetheless organisations whose official remit includes defence of the environment, or citizens lodging a private prosecution, as the case may be, are entitled to lodge the corresponding judicial remedy against the action or inactivity of the administration in said punitive proceedings.

Should an administrative complaint be lodged in a wildlife poisoning case and the administration takes no action, this will result in an *acto presunto de denegación* (presumed lack-of-evidence report), against which an application for a judicial review may be lodged after passing of the maximum decision deadline (3 or 6 months, according to case law). As pointed out by DOBARRO GÓMEZ⁸⁹ "the judgment might determine either the administration's decision not to go ahead with the punitive proceedings or direct enforcement of the penalty and remedial measures by the court" in view of the lack of any unanimity in case law.

In the judicial review procedure environmental defence associations would invoke their legitimacy to take part in judicial reviews deriving from poison penalising proceedings on the basis of two sections (b and h) of article 19.1 of the Judicial Review Law 29/1998 (*Ley de la Jurisdicción Contencioso-Administrativa*), which legitimises "associations...that are affected or are legally qualified for defence of collective interests and rights ", and also "Any citizen lodging an private prosecution in cases expressly provided for by law".

Citation can be made here of a pronouncement on the legitimacy of a conservation body to take part in an environmental punitive procedure of the Higher Court of Justice (*Tribunal Superior de Justicia*) of Castilla y León, Judicial Review Chamber (*Sala de lo Contencioso*) based in Burgos on 17 January 2003, Arz. JUR 2003, 22624, recognising an environmental association's status of interested party in punitive proceedings initiated after a complaint lodged by said association, asking for a judicial review of the implicit rejection of the case. One of the legal grounds ran as follows:

"THREE.- The appeal is founded essentially on the premise that no interested party may be admitted apart from the complainant or accused in the punitive proceedings.

But this is not so. An analysis of the provisions laid down in article 13.2 of R.D. 1398/93 shows that the initiation agreement will be communicated to the examining judge, passing on at the same time as many actions as may pertain thereto, with due notification thereof being given to the complainant, where applicable, and the inter-

88. Article 3 of *Real Decreto* 1398/1993 of 4 August, approving the Procedural Regulation for Enforcement of Penalising Powers (*Reglamento del Procedimiento para el Ejercicio de la Potestad Sancionadora*)

89. DOBARRO GÓMEZ, C., La pasividad de la administración ante la denuncia administrativa. Causas procesales para la satisfacción del denunciante, *Revista Jurídica Galega* No. 47, page 67

ested parties, understanding the accused party to be included therein. This notification will inform the interested parties that if no pleas are made on the content of the initiation within the deadline laid down in article 16.1, the initiation will be able to be considered a draft decision suggested by court secretary when it contains a precise pronouncement on the attributed responsibility with all the effects provided for in articles 18 and 19 of the Regulation.

That is to say, this article 13.2 admits the possibility of interested parties apart from the complainant and plaintiff, otherwise there would be no differentiation between interested parties and, in any case, the accused.

But this same distinction is provided for by law in the crucial junctures of the punitive proceedings, not only when regulating the right of information and transparency in the proceedings, article 3.1, but also when dealing with the essential phases of the punitive proceedings, and before beginning the hearing, whereby interested parties will be entitled to make pleas and furnish documents they deem fitting.

They are entitled to lodge pleas, furnish documents or information and propose evidence within a deadline of fifteen days, article 16.1.

The interested party is once more spoken of when the proposed evidence is rejected with grounds, article 17.2, whereby interested parties are entitled to furnish the evidence directly, article 17.3.

Article 19.1 once more refers to interested parties who will be notified of the draft decision suggested by court secretary. Article 20.1 dictates that interested parties will be notified of the agreement to take complementary measures and also states the information to be passed on for them to declare as they may be rightfully entitled to. Interested parties will also be notified of the final decision taken, article 20.5.

The conclusion is therefore drawn that interested parties apart from the complainant and accused are allowed and that these interested parties will be those established in the aforementioned case law of the Constitutional Court otherwise the law would refer always to the defendant without making any reference to interested parties.

Whether or not the association ASDEN can be included under this heading may be arguable and also whether its corporate object is really the defence of the environment, including therein the protection and study of nature and of ecosystems and environment of Soria, in particular. It is clear that the decision given in the punitive proceedings will attribute to the appellant herein... a potential advantage and judicial usefulness to be materialised should the lodged action prosper. This judicial usefulness is manifested in returning the countryside and stream environment to its former state. Though it now be impossible to return the destroyed flora to life, there will be due punishment of whomsoever has contravened ruling law, obtaining preventive measures for subsequent actions of the same tenor”.

In the first case reiterated case law of the *Tribunal Supremo* interprets article 19.1.b) of the Judicial Review Law (*Ley de la Jurisdicción Contencioso-Administrativa*) on the basis of the overarching environment-protection principle laid down in articles 45 and 53.3 of the Spanish Constitution, enlarging legitimacy in this area to take in environment protection associations on the grounds that they are “invested with a special collective and legitimate interest”. Witness the Judgment of Chamber 3 of the *Tribunal Supremo* of 25 June 2008 (rec. 905/2007), which indicates “*the special and decisive protection of the environment under article 45 of the Spanish Constitution and the broad, diffuse and collective character of the interests and benefits that its protection affords society itself - as a substantial usefulness for society as a whole - binds us to configure a field of legitimacy in this matter, in which associations like the appellant should be deemed to be invested with a special, legitimate, collective interest, whereby said associations, when challenging environmental decisions like court orders, should be understood not to be exercising solely a defence of ruling law but also acting in defence of some collective interests that are affected by the positive or negative character of the administrative decision hereby challenged. (...) The appellant, therefore, in challenging the acts against which this appeal is directed, acted duly legitimised in consideration of the purpose with which it did so, within the framework of legitimacy allowed by article 19.1.b) of the judicial review law, LJCA*”. Along similar lines runs a Judgment of Chamber 3 of the *Tribunal Supremo* of 25 May 2010 (rec. 2185/2006). Collective and diffuse interests like environmental interests are therefore regarded as eligible to take part in legal protection on the basis of a broader idea of legitimacy. As well as subjective rights this brings “legitimate interests” into the picture, as regulated in article 24.1 of the Spanish Constitution: *All persons have the right to obtain effective protection from the judges and the courts in the exercise of their rights and legitimate interests, and in no case may there be a lack of defence.*

Secondly, the legitimacy of environmental defence associations, within the judicial review area, also derives from article 19.1.h) of the Jurisdiction Law (*Ley de la Jurisdicción*), when they are exercising public action in environmental matters as recognised on behalf of environmental organisations meeting a set of requisites laid down in articles 22 and 23 of *Ley 27/2006* of 18 July, regulating the rights of information access, public participation and access to justice in environmental matters. Article 23 of *Ley 27/2006* requires these associations to be non-profit-making organisations whose founding statutes include the purpose of environmental protection in general or any of the components thereof in particular. They must also have been set up for over two years and have been actively carrying out the necessary activities in pursuit of the purposes laid down in its statutes, within the affected area.

Nonetheless, this regulation of *Ley 27/2006* is not in itself sufficient. As the *Tribunal Supremo* has ruled, environmental associations of this type whose statutory purposes include defence of the environment (regardless of whether they meet the rest of the eligibility criteria of article 23 of *Ley 27/2006*), are not exercising exclusively a defence of current law (*acción pública o popular*: interested or disinterested private action), but are acting in defence of some collective or diffusive interests (19.1.b *Ley 29/1998*) that are affected by the positive or negative character of the appealed-against administrative decision, such as the decision on whether or not to initiate

punitive proceedings against a poisoning episode, suspend the hunting activity in the hunting ground involved or not to enforce remedial measures of the environmental damage caused. Furthermore, the law expressly legitimises and qualifies these associations for taking collective action in defence of said interests, as recognised too for other associations like consumer watchdog organisations. This is so pursuant to article 7.3 of the Judiciary Law (*Ley Orgánica del Poder Judicial*) which stipulates that “*The courts of law will protect legitimate interests and rights, both individual and collective, without ever giving rise to situations of defencelessness. In defence of the latter, due recognition will be given to the legitimacy of corporations, associations and groups that turn out to be affected or are legally eligible for defence and promotion thereof*”. Reference here must be made to article 9 (sections 2 and 3) of the Aarhus Convention⁹⁰ on Access to Information, Public Participation in Decision-Making and Access to Justice in Environmental Matters, which expressly indicates that non-governmental organisations that meet the requisites of national law will be considered to have a sufficient interest and have rights capable of being impaired due to actions or omissions violating the provisions of environmental law. This clearly reaffirms their legitimacy for acting in defence of collective or diffuse environmental interests (19.1.b *Ley* 29/1998) which turn out to be affected by the positive or negative character of the administrative decision appealed against.

2. Intervention of environmental non-governmental organisations and associations in criminal procedures as private prosecution (*acusación popular*)

Under Spain’s criminal procedure system accusations may be brought not only by the *Ministerio Fiscal* (Public Prosecutor’s Office) but also by those directly offended or damaged by the crime - i.e., private prosecution brought by a citizen with no direct interest in the case (*acusación particular*) under article 110 of the *Ley de Enjuiciamiento Criminal* - and also any citizen, whether or not offended by the crime, bringing an *acusación popular* under article 270 of said law.

At the moment, in criminal procedures against wildlife crimes involving illegal poison use, there is a divergence of opinion over the nature of the participation of environmental defence organisations and associations: certain courts of law allow participation thereof as private prosecution (*acusación particular*), with de facto attribution of damaged parties. In other cases, however, they are recognised as entitled only to bring a private prosecution brought by a citizen with no direct interest in the case (*acusación popular*), which could also be brought by any association or citizen even if their specific purposes do not include defence of the environment. This second option seems to be commonest, if the organisations in question do not vouch for specific, more intense interests than general interests in environmental defence.

Additionally, certain courts lay down further requisites for these environmental associations bringing an *acusación popular*, requiring them to do so by bringing a lawsuit (*formalización de*

90. Convention on Access to Information, Public Participation in Decision-Making and Access to Justice in Environmental Matters, done in Aarhus (Denmark), on 25 June 1998, known as “Aarhus Convention”. Spain ratified the Aarhus Convention in December 2004, (coming into force on 31 March 2005), which has since become part of Spain’s body of law under article 96.1 EC.

querella) and furnishing a court bond (*prestación de una fianza*) even if a procedure has already been initiated by SEPRONA or the public prosecutor's office.

We would like to point out here that *acusación popular* is a constitutional right (article 125 Spanish Constitution), pertaining not only to natural persons but also to legal persons or groups (the latter once repeatedly questioned but now accepted unreservedly). Subsequent case law has also softened the prior requirement of a separate lawsuit and court bond (articles 274 and 289 of the *Ley de Enjuiciamiento Criminal*), both of them now being deemed to be unnecessary in the following cases:

- Where the party concerned is to participate in a case already underway, the separate lawsuit is no longer considered to be necessary.
- Moreover, in relation to the requirement of a court bond (article 290 *Ley Enjuiciamiento Criminal*), since the Judgment of the *Tribunal Supremo* of 22 May 1992, it has been made perfectly clear that the requirement of a court bond is admissible when initiating a suit under the criminal procedure but not when exercising *acción popular* in a process already underway.

Tribunal Supremo case law has been ruling in this sense since 1992. Witness the Judgments of 12 March 1992, 22 May of 1992, 3 June of 1995, 30 May of 2003, and 28 March of 2006, among many others. Other rulings of the same tenor have been made by *Audiencias Provinciales*, *Juzgados de Instrucción*, and *Juzgados de lo Penal*. Witness the Judgment of the *Tribunal Supremo* of 28 March 2006 (rec. 2067/2004), indicating: “Without forgetting that this Chamber has been upholding (SSTS. 18.3.92, 22.5.93, 3.6.95, 4.2.97) that the law, in cases of public crime, has not limited *acción popular* to the right of requesting initiation of the criminal process by lodging a lawsuit but has also countenanced same in cases already underway, participating therein under the terms laid down in article 110 LECrim, i.e., becoming a party in the name of the public at large in a pending process, without constraining efficacy of the criminal action to the lodging of a lawsuit. The furnishing of a court bond, under article 280, is necessary grounds of the admissibility of the lawsuit when this is a means of initiating the whole criminal process but this would not seem to be reasonable when exercising *acusación popular* in a process already underway”.

The requirement of a formal lawsuit and furnishing of a court bond for environmental organisations intervening in criminal procedures that are already underway represents a serious obstacle to exercising of the right to environmental justice in the criminal field. It should not be forgotten that it is often the case in this field that if associations of this type do not bring an *acusación particular* or *acusación popular*, a high percentage of wildlife crimes are set aside without asking for further evidence, or the instruction phase is improperly carried out without the input of evidence conducive to a conviction, given the specificity of the matter in hand.

It has to be borne in mind here that in cases of the illegal use of poison, the deterrence effect for conduct of this type, when dealt with in a criminal trial, does not consist only of the imposition of prison sentences or fines but also a concomitant finding of civil liability for the damage caused, whereby the convicted person is bound to pay compensation for the damage caused, either to CCAA, or the central government, tantamount to the value of the species killed or damaged, re-

medial measures or site restoration, etc. In the case of the death of an Spanish imperial eagle, Black Stork or Bonelli's Eagle, for instance, each one would be worth 60,000 euros in CCAA like Castilla-La Mancha⁹¹. In many cases the compensation sum includes not only the value of the species but also the cost of the damage caused and the economic impact on government-run species conservation projects. A recent case of lynx poisoning came out at 115,000 euros.

In many cases, however, the government authorities that receive the civil-liability compensation are not even appearing as accusation parties in the criminal proceedings. All the accusation, procedural, interrogatory, evidence-giving and court-hearing work, etc. carried out by environmental organisations, thereby obtaining sizeable compensation sums for government authorities, is not even offset by the possibility of recouping procedural costs (expenses of lawyer, legal representative and expert witnesses), the eligibility for which is recognised by many courts only in the case of *acusación particular*, and not *acusación popular*.

Without downplaying the fundamental work carried out by the public environmental prosecutor's office, the plain truth is that, given the sheer amount of affairs of all ilk to be dealt with, not only environmental, it is materially impossible for the prosecutor to attend all interrogations. It is easier for environmental organisations, given the specialisation in these specific matters of their lawyers and experts, to keep a closer track of the cases and provide specific expert evidence.

Unsatisfactory regulation in Spain's criminal procedural laws of the participation of environmental organisations in environmental crimes could become even worse if certain proposed amendments of the *Ley de Enjuiciamiento Criminal* should go head. These are being driven by certain dogmatic sectors who argue that *acusación popular* should be reserved only for natural persons and then only for certain crimes, excluding exercising of this right by political parties, trade unions and other public or private legal persons, including environmental NGOs.

Recognition of the condition of damaged party, as an eligibility requisite for making an *acusación particular*, in criminal proceedings, depends on legal recognition that these organisations, after meeting certain prerequisites, are then acting in legitimate defence of collective and diffuse interests that are affected by actions that impair or damage the environment. The work performed and resources used by these organisations for the protection, defence, study and our natural heritage and biodiversity, etc, and bringing home its importance to society, is recognised by the declaration of public utility made in favour of many of them, their participation in environment advisory boards and collaboration with diverse government authorities at local, regional, state and community level, in the protection and defence of these interests. Actions that injure the collective interest they protect and defend represent not only an affront to environmental legality, which legitimises them to intervene and advocate compliance with the law, in the administrative or criminal sphere, but also a moral and in many cases material impairment for these organisations (such as the knock-on effect on species included in the conservation programmes they run). This again legitimises them to take part in a suit as an injured party from

91. Continuing to take this Comunidad Autónoma as our example, a Great Bustard, Red Kite, Egyptian Vulture or Peregrine Falcon is valued at 18,000 euros, a Lesser Kestrel, Marbled Teal or White-Headed Duck at 12,000 euros; an Eagle Owl, a Montagu's Harrier or a Sparrow Hawk at 6000 euros; a Little Bustard, A Flamingo or a Crane at 3000 euros, etc.

the civil point of view, again in both administrative and criminal spheres. This right is already being recognised in some comparable countries like France and also, implicitly, by our own courts by accepting these organisation's participation as *acusación particular* in criminal proceedings or by declaring the existence of a special collective legitimate interest in judicial reviews.

As ruled by the Judgment of the *Tribunal Constitucional* (Plenary session), S 31-1-1994, No. 34/1994, rec. 1399/1991, BOE 52/1994 of 2 March 1994. Presiding judge: Díaz Eimil, Eugenio: *"Protection under the right of acusación popular requires that the defence of the common interest serves to sustain a legitimate and personal interest (STC 62/1983)". (...) "Moreover, it cannot be denied that there are some infringements whose prosecution ties in directly with the objective of certain associations. This is precisely the case with the appellant association herein. It cannot be denied that in this case exercising the criminal action fits in perfectly with the appellant association's declared objectives, directly related with the defence of the natural heritage. As the public prosecutor has pointed out it is obvious that an association set up for the purpose of defending nature and the animal world has a legitimate and personal interest in watching out for correct exercising of administrative powers, in this case with respect to the revocation of a penalty imposed on a hunter for shooting down a Great Bustard"*.



The illegal use of poisoned-baits is a predator-control method that kills thousands of animals every year. From 2005 to 2010 poison accounted for the death over 45,000 animals from different species, some of them listed as “In danger of extinction” like the Spanish imperial eagle, the Bearded Vulture, the lynx or Red Kite. The population of the latter bird has fallen by 50% in some regions like Castilla y León due to the venom used in baits left in the countryside.

Spain’s laws forbid the use of baits as a way of hunting animals, considering it to be an indiscriminate, mass-killing method. It has been specified as a wildlife crime in the Spanish Penal Code and classed as a serious or very serious infringement in regional legislation. Despite this, crimes of this kind still go unpunished all too often; very few cases end up in the courts or are dealt with in administrative procedures.

Government authorities, NGOs, public prosecutors and officers of various security forces have made a notable effort to clear up the poisoning cases that act as continual threats to our biodiversity. Investigations carried out and fine-honing of the techniques used has tightened the net around poisoners. A crucial contribution has also been made by the legal work performed in some sectors such as the NGOs of the *Programa Antídoto*, a driving force behind the struggle against poison in Spain.

This work records the experience built up by various stakeholders in the investigation of wildlife poisoning episodes and the legal action taken against it. It is therefore designed to be of help to legal professionals and investigators in the actions they take to prosecute this illegal practice and find the guilty parties.

This publication is part of the SEO/BirdLife-coordinated *Life+ VENENO*, Project, which aims to bring about a significant reduction of the illegal use of poison in Spain.



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